

REPRESENTATIONS OF PHARMACY IN ROMAN LITERATURE FROM CATO TO OVID

By

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A dissertation submitted in partial fulfillment of
the requirements for the degree of

Doctor of Philosophy
(Classics)

at the

UNIVERSITY OF WISCONSIN-MADISON

2004

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A dissertation entitled

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University of Wisconsin-Madison
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Date of Final Oral Examination: August 9, 2004

Month & Year Degree to be awarded: **December**

May

August 2004

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Acknowledgements

I would like to thank Dr. Patricia Rosenmeyer for her enduring patience, constructive criticism and genuine interest in my research. Her readers know she is a great academic; her colleagues respect her; her students admire her. Nothing else can be asked of a great scholar.

I would like to extend my gratitude to Dr. Stephen Barclay, professor of Bacteriology, for his support of interdisciplinary scholarship and academic excellence. I would also like to recognize Dr. John Scarborough for his excellent scholarship in the history of Greco-Roman medicine. I would like to thank my committee members, Carole Newlands, Laura McClure, Victoria Pagan and Thomas Broman for their willingness to read and contribute to this dissertation. I would also like to acknowledge the department of Classics at the University of Wisconsin, for its financial support, inspiring coursework and the opportunity to teach numerous stimulating classes. The Institute for the History of Pharmacy at the University of Wisconsin also supported me in my endeavors and deserves my sincere appreciation.

I must also thank Oedipus, who has been my loyal companion throughout this entire process. Most importantly, I would like to thank my wife Judy for her lasting faith and vision for the future. She is my life, my love and my joy.

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Introduction

Part I: What Is Roman Pharmacy?

You will not find scholars of the history of medicine amenable to the concept of Roman pharmacy; Roman drugs yes, Roman pharmacy no. When I conceived the idea for a work on this topic, I was told by a prominent scholar that the term itself is anachronistic, presumptive and impossible to support with any textual evidence. I have come to realize that this widespread resistance to the concept of Roman pharmacy is the result of two aberrant approaches to the history of Roman medicine: the first, the neglect of non-medical literature as a potential source for the history of pharmacy; the second, an unwillingness to associate anything 'scientific' with the Roman world. This two-headed ideological serpent has guarded the golden fleece of pharmacy long enough. When we consider the vast amount of information available to us concerning the use of drugs as medicines in our ancient sources, the existence of a Roman pharmacy becomes exceedingly difficult to ignore. The fingerprints of the trade can be found in the works of poets, playwrights and prose authors of all genres, who openly demonstrate some degree of personal familiarity with drugs and poisons. On one hand, historians of medicine resist using these literary sources as evidence because they do not typically trust non-medical authorities to explain medical problems. On the other hand, scholars of Classics often avoid references to Roman pharmacy because the subject bears a distinctly technical flavor that oftentimes seems arcane and pedantic. Because of this, they often

assume the subject is more appropriate for the discriminating palate of historians of science, but this is not the case. Drugs were an important element of Roman society, and understanding them will only assist in our search to comprehend better the great literary works of antiquity. It is my optimistic belief that both groups of scholars would be best served by applying their own unique and valuable perspectives in tandem to explore more fully the topic of Roman pharmacy.

Latin literature from both the Republic and the Empire is a veritable gold mine of “things pharmaceutical.” When first beginning my study of drugs in Roman non-medical works, I was amazed by the sheer number of references to medicines and poisons of botanical, animal and mineral origins. Currently, I have not found a single Latin author who failed to mention at least one popular drug; the sources are replete with information on the use of specific medicaments, and often shed light on cultural aspects of pharmacy that are absent from the medical sources. Plants make up the majority of pharmaceuticals in the works of early Roman authors, and they are often firmly fixed within the matrix of popular myths, stories and historical accounts. Because of this it is difficult to distinguish a particular author’s personal interest in a drug from the accidental presence of the same drug in certain well-established narratives. Despite this, the sheer volume of references to drugs in Latin literature should inspire us to delve deeper into a topic the Romans obviously considered significant.

The reticence of historians of medicine to consider Roman drug practices as a legitimate science has caused considerable problems for those attempting to understand the widespread use of remedies in ancient Italy. Pharmacy is a science concerned with the preparation and administration of drugs. As such, it is considered by many to be a

creation of the modern world; scholars readily acknowledge the use of drugs in Roman antiquity, but none have been willing to propose the existence of pharmacy as a technical discipline possessing its own particular rules and professional components. Despite this, much has been written about Roman medicine, and unlike pharmacy, many heartily embrace its existence as an historical fact, without asking questions about its scientific validity. This approach has created an awkward academic conundrum: How did Roman physicians manage to practice a discipline (i.e. medicine) that relied heavily on the tools and fundamental principles of another undiscovered discipline (i.e. pharmacy)?

Roman medicine did indeed rely almost exclusively on the use of drugs. This fact alone would seem to allow us to hypothesize the existence of pharmacy as an independent discipline—or medicine would have ceased to function. From an examination of our Latin literary sources, it appears that Roman medicine's primary concern was the proper application of healing drugs; therapy was confined solely to the treatment of injury and disease with medications. There was little concern for diet, and even less interest in surgery. Unlike their Greek neighbors, Romans of the Republic never established their own medical theories; there is no evidence that they employed physiological schemes, examined anatomy or ever investigated the etiology of disease. Therefore, Roman medicine appears to be nothing more or less than the preparation and administration of drugs, which is the very definition of pharmacy.

This argument also makes sense from a purely philological perspective. Classical Latin never clearly distinguished the art of medicine from the administration of drug remedies: *medicus*, the Latin word for 'physician' is derived from the verb *medeor*, which means to heal or cure with the application of drugs. Marcus Porcius Cato (234-

149 B.C.), one of our earliest Latin sources, used this word to express the preparation of a certain specific drug recipe.¹ That is, *medeor* originally meant to “cure” or “remedy” and may have included the application of drugs to cure disease.² Upon this linguistic foundation was built the concept of the *medicus*, the one who administers drugs, and *medicina*, the art of administering drugs, or medicine.

There are several other terms that will be useful to consider before beginning an investigation of drugs in Roman literature. First, it is important to realize that a number of words in Latin can be used to indicate our word “drug.” The majority of these contain the *med-* root. For example, “drug” can be represented by *medicamen* and *medicamentum*, while both terms can also denote dyes and cosmetics.³ *Medicina* is far more general, but it can also represent a “curative” such as a drug.⁴ Adjectives like *bonus* (‘good’) and *malus* (‘bad’) are often used with these terms to further distinguish drugs that are beneficial from poisonous substances. *Venenum* generally indicates a harmful drug, but it too can be used of dyes and even beneficial medicaments.⁵ The distinction between these terms is best understood by examining the context within which each is found. There are slight differences in nuance between them, and this means that each is inseparable from a specific setting or action. This is best understood by carefully observing the literary environment of each particular instance.

¹ Cato *De Agri Cultura* 127.1.

² *Medeor* is defined by the *Oxford Latin Dictionary* as a verb meaning “to heal, cure, remedy” (p.1087).

³ Both of these words are defined as a drug by the *Oxford Latin Dictionary*: *Medicamen*- “a substance administered or applied to produce specific effects upon the body, medicament, drug.” *Medicamentum*- “a substance administered to produce specific effects upon the body, medicament, drug.” (p.1088).

⁴ *Medicina*- “a remedy, cure.” *Oxford Classical Dictionary* (p.1088).

⁵ *Venenum* has a wide variety of definitions including poisons and dyes: *Oxford Latin Dictionary* (p. 2027)

Most of the drugs found in our literary sources from Cato to Ovid are botanicals, but a few are of animal and mineral origin. The Roman world did not restrict their definition of a “drug” to plants, but included a number of other substances that had some obvious affect on the body. In this work, I will focus on the botanical curatives used by the Romans because of their widespread use and readily available accessibility. I do not intend to ignore important drugs of an extrabotanical nature, but I will restrict my consideration in order to highlight the most prominent drugs in antiquity.

Latin words for medicine and healing are inseparably linked with the concept of pharmacy; medicine as an art should not be considered anything other than the use of drugs to treat disease and injury. Just as Early Roman authors considered medications, poisons and cosmetics all drugs, they also never made an attempt to distinguish medicine and pharmacy, as we are prone to do, and seem to have been quite comfortable with an understanding of medical treatment as the simple administration of healing drugs. This dissertation is based on and framed by an understanding of this single important principle: Roman medicine was Roman pharmacy.

Part II: Are There Helpful Secondary Sources for Ancient Pharmacy?

There are a number of good articles and books on the history of medicine in Rome, but most of them rely exclusively on Latin Imperial sources, which shed little light on events of Republic. Works on the history of drugs tend to focus on authors like Dioscorides (1st cent. A.D.) and Scribonius (c. 1-50 A.D.), whose pharmaceutical works are valuable, but clearly reflect Greek approaches to medicine and are therefore poor

representatives of early Roman pharmacy. Celsus (1st cent. A.D.) is often used as evidence to reconstruct native Roman medical practices, but like his contemporaries, he betrays a certain penchant for Greek theoretical medicine. Modern authors prefer these late sources to earlier non-medical literature, and thereby commit themselves to seeing Roman medicine through the lens of the first century A.D., when Greek approaches to science were far more prevalent, and Roman medicine was increasingly dominated by eastern ideas. This approach tends to obscure our understanding of native Roman medicine, and often leads us to the conclusion that Roman pharmacy never existed.

There are several lengthy books and short articles on the history of Roman medicine, but I have selected a few of the most significant to introduce my topic. T. C. Allbutt's *Greek Medicine in Rome* (New York, 1921) is perhaps the best example of a history of Roman medicine that is based entirely on Greek influences. The work is a helpful introduction to the question of Greek influences, but says little of value about the development of pharmacy in Italy of the Republic. J. Scarborough's *Roman Medicine* (Ithaca, 1969) is a thorough examination of early Roman medicine, but somewhat misleading as a result of its dependence on Pliny's conception of Republican medical practices. Pliny (23-79 A.D.) was an avid collector of eclectic facts and superstitions regarding ancient medicine and pharmacy. His chronological distance from actual Republican medical practices makes it difficult for us to consider any of his broad conclusions an accurate of medicine as it was practiced several hundred years before his birth. For example, he disregarded many important elements of early Roman medicine, including the role of the physician as medical-artisan (*medicus*) and the dominant role of pharmacy in the evolution of Roman medical practices. He also tends to overemphasize

the classification of Roman pharmacy as 'folklore' and is all but enamored with magicians, augurs and other non-medical personnel. Pliny's far-reaching conclusions directly influence the efforts of modern historians. G. Majno's *The Healing Hand* (Cambridge, 1975), a good midnight read for physicians with insomnia, relies heavily on Pliny's poorly supported medical musings. It includes a number of interesting pharmacological and epidemiological facts, but does not directly contribute to our understanding of early Roman pharmacy.

V. Nutton, in his chapter on Roman medicine in *The Western Medical Tradition* (Cambridge, 1995), began to question the overbearing influence of Pliny in the reconstruction of medical history, but falls short of entirely dismissing Pliny by supporting his idea that Roman medicine was grossly overshadowed by Greek individuals and ideas. Despite this, Nutton's work is marvelously insightful and an important source for my dissertation. R. Jackson's *Doctors and Diseases in the Roman Empire* (Norman, 1988) is exactly what the title indicates—a straightforward examination of later Imperial medicine. Jackson wisely avoids any lengthy discussion of early Roman medicine and carefully reconstructs medicine as it existed under the Caesars. Another helpful work for any investigation of Roman pharmacy is W. Jashemski's short work titled *A Pompeian Herbal* (Austin, 1999). It contains interesting and oftentimes entertaining information on the botanical environment of Pompeii, and helps to set a pharmacological context for Roman medicine.

On the use of narcotics, J. Scarborough's chapter on opium in *Drugs and Narcotics in History* (Cambridge, 1995) contains an excellent survey of the history of the opium poppy as it appears in Greek and Roman sources. M. Merlin also wrote

extensively on all aspects of poppy cultivation and opium use in *On the Trail of the Ancient Opium Poppy* (Cranbury, 1984). Although most of Merlin's book is about the use of opium in Greece and Egypt, it contains valuable information on many topics directly relevant to the study of Roman pharmacy.

A number of good articles have been written on various aspects of Roman medicine, but the best are contained in the 1993 *ANRW*. J. Scarborough's article, *Roman Medicine to Galen*, examines several aspects of Roman medicine, including its roots in religion and magic, and the eastern influence of the Greeks. V. Nutton also published an article in this volume, *Roman Medicine: Tradition, Confrontation, Assimilation*, in which he addresses the difficulties of Pliny's argument that Roman medicine was inseparable from that of the Greeks. Nutton's work is invaluable for those who see some difficulties with Pliny as a source for the history of medicine. Lastly, R. Jackson's article, *Roman Medicine: The Practitioners and their Practices*, contains a careful evaluation of public and private doctors, and is a useful source despite his reliance upon Pliny.

Once again, I have chosen those works I believe to be the most helpful in introducing the topic of Roman medicine and pharmacy. No single work on Roman pharmacy exists, but it is likely that recent work on ancient pharmaceuticals will spark enough interest in the field to merit a general text on the subject. It is my sincere hope that the following pages will act as a catalyst for classicists to begin to view Roman pharmacy as their own possession, and I genuinely hope that my work will inspire some to take up the immense task of fully explaining the strange and exciting drug references we find in Latin literature.

Part III: Latin Literary Sources for Early Roman Pharmacy

This work traces the history of Roman pharmacy as it is represented in our Latin sources that fall between the writings of Cato and Ovid. I selected this particular period of time based on the nature of our literary sources. The earliest surviving medical writings in Latin date from the period immediately following the reign of the first emperor, Augustus (31 B.C.-14 A.D.). From the beginnings of the Republic to the death of Augustus, modern scholars possess no medical authors in Latin, and have therefore tended to ignore the native Italic elements of early Roman medicine. In addition, an overabundance of Greek medical sources from this period has cast a certain shadow on Roman practices; persuaded by Pliny, a Roman author of the mid-first century A.D., modern scholars have accepted the notion that Roman medicine *per se* did not exist, and that Roman practices were dominated by Italy's Greek neighbors. Roman medicine and pharmacy during this early period is relatively unknown as a result of an absence of Latin sources and the overbearing nature of our praise of Greek science. However, this does not mean that the history of native Roman pharmacy is entirely lost; literary sources from the period of the Republic through the reign of Augustus contain a great deal of evidence for the role of physicians and the use of drugs. On the whole, these works embody popular views on pharmacy, and can be used to examine the role of the *medicus* from the perspective of someone unskilled in the art. That is, they contain the common man's understanding of the practice of pharmacy, and are therefore invaluable resources for the most rudimentary aspects of drug therapy in early Rome.

The non-medical nature of our Latin texts from Cato to Ovid demand that anyone examining them for medical or pharmaceutical references must learn to discern the

literary impact of the context within which the medical or drug references are found. Latin authors draw upon a rich mythic tradition, and frequently include narrative elements with long histories and significant literary baggage. Mythic characters and events are loaded with meaning and would have generated specific reactions from a Roman audience. Oftentimes, such mythic elements are ‘dressed up’ in the garb of Roman cultural norms and are given distinctly Roman characteristics. No author can write in a vacuum, and as a result, each of our authors from Cato to Ovid betrays a distinctly Roman impression of the events and personae found in traditional Greek myths and historical narratives. My examination of drugs in these literary works will duly consider such cultural fingerprints left by our authors.

Searching for drugs in Republican and early Imperial literature sounds like a daunting task, but our sources are so replete with pharmaceutical references that there are only a couple authors from this period who neglect the topic—this was my first indication that native Roman pharmacy was a field waiting to be discovered. I have chosen to use the non-medical literary sources that predate our Latin medical sources of the first century in order to shed some light on the development of native Roman pharmacy. I have quoted from later sources only when they are able to contribute specific technical information that helps us to understand the “big-picture” of Republican pharmacy. I do this because I do not want to taint my reconstruction of early Roman pharmacy with sources that rely heavily on non-native ideas and opinions.

Although I briefly mention a reference to drugs in the Twelve Tables, a mid-fifth century Roman legal code, our most substantial sources on pharmacy come from the late

third century.⁶ Marcus Porcius Cato wrote an agricultural manual illustrating the most practical approaches to maintaining economic prosperity on the farm. His *De Agri Cultura* is filled with good advice on the proper care of the Roman farming estate, and contains a number of drug prescriptions used to maintain the health of herd animals. It contains a large quantity of information on specific drugs, and some simple methods concerning the preparation and administration of medicines. Cato also shows us which drugs were readily cultivable in Italy, and which were considered important and sometimes valuable resources. His knowledge of pharmacy represents the most basic aspects of the science as it developed in the rural countryside. Marcus Terentius Varro (116-27), a later Republican author, also wrote a work on agriculture, titled the *De Re Rustica*. Like Cato, he mentions drugs frequently in the context of human and animal care, but also adds a good bit of detail about the professional aspects of pharmacy, including some important aspects of the relationship between farmers and doctors. Both Cato and Varro provide a wealth of information on early methods of pharmacy practice, and supply many details about the use of specific drugs in the rural environment. Much of the chapter #1 is an analysis of the references to pharmacy in these two sources, and many of my conclusions about agrarian medicine are based upon the evidence derived from them.

Titus Maccius Plautus (254-184), our earliest significant source on Roman pharmacy, was a comic playwright. His plays have little to do with the art of medicine, and have therefore been mostly ignored by medical historians, but are filled with rich supply of ‘popular’ opinions about drugs and physicians. Plautus’ comedies provide us with an inside look at the medical problems of city-dwellers of the third century, and their

⁶ Unless otherwise indicated, all the dates in this section come before the Common Era (B.C., or B.C.E.).

dependence on drugs as remedies. Although he based his plots, characters, and settings on Greek comedy, Plautus works were performed in Rome; they were tailored to the cultural and social environment of the Roman mind, and thus contain material meant to be understood by Romans living in Rome. This material is intensely genuine, and expresses opinions about pharmacy that are particularly relevant to life in the city. Therefore, it is a good source for developing an understanding of drugs and pharmaceutical practices in the urban environment.

As we move into the 1st century with its numerous Republican sources, a wealth of information on early Roman pharmacy becomes available. For example, Titus Lucretius Carus (94-55), an epicurean philosopher who wrote a lengthy poetic discourse on nature called the *De Rerum Natura*, includes numerous references to drugs; much of this material is relevant to each of the chapters contained in this dissertation and can not be confined to a single location or topic. Lucretius mentions specific drugs in the context of medical treatment, and discusses a number of diseases that seem to be prevalent in antiquity. Although he was clearly not a physician, he provides us with a considerable appreciation of the art of medicine in Rome. Marcus Tullius Cicero (106-43), the famous statesman and orator, was another well educated Roman whose knowledge of medicine and pharmacy seeped into works of a more literary nature. Most of his references to drugs are mentioned in legal contexts, and provide us with a considerable amount of information on criminal trials for poisoning. Like other authors, Cicero's non-medical approach to drugs enables us to view pharmacy from the layman's perspective.

Additional information concerning pharmacy as it was practiced within the context of city-life can be found in the lengthy work of Titus Livius (59 B.C.-17 A.D.),

an historian of the age of Augustus who wrote about the history of Rome itself. His *Ab Urbe Condita* supplies most of our information concerning the history of disease and epidemics in Rome. He also includes an important consideration of poisoning conspiracies and the legal steps taken to combat the growing use of drugs as popular murder weapons of the urban environment.

Renowned poets like Gaius Valerius Catullus (c. 84-54), Quintus Horatius Flaccus (65-8), and Publius Ovidius Naso (43 B.C.-17 A.D) wrote works concerned with more personal aspects of life including love, envy, jealousy and greed. As a result, their references to drugs, like Plautus', reflect mundane experiences with medicinals, poisons and narcotics. They are all a rich source of valuable information on the use of drugs in antiquity, but Ovid was clearly the most interested in the topic. His retelling of mythic legends in the *Fasti* and *Metamorphoses* subtly and masterfully incorporates the use of drugs in stories of gods, goddesses and legendary heroes. Much of my information on recreational drugs comes directly from his works. Without Ovid, our understanding of narcotics in Rome would be much more limited. Ovid's contemporary, Publius Virgilius Maro (70-19), wrote poetic works on agrarian and pastoral experiences that contain a curious combination of popular medicine and traditional rural practices. His *Georgics* and *Eclogues* provide a unique perspective that seems to hang somewhere between the agrarian works of Cato and Varro, and the poetry of Catullus, Horace and Ovid. Sextus Propertius (c. 50-15) and Albius Tibullus (54-19), two additional amatory poets of the first century, also make reference to the use of drugs, and are used on several occasions in this work.

Part IV: Summary of Chapters

This work contains four chapters which address the most basic aspects of early Roman pharmacy. These chapters follow a two-fold division: the first and second are concerned with the use of medicinal drugs, the third and fourth consider prominent non-medical uses of pharmaceuticals. The first two chapters differ with respect to the geographical boundaries that influenced the development of pharmacy: early Roman pharmacy evolved to meet the needs of different ‘communities,’ namely the rural countryside and the crowded urban environment of Rome. Both settings provided a unique set of characteristics, accidental and deliberate, which guided the development of pharmacy. Regional characteristics, like the distribution of prominent pathogens and environment-specific injuries, applied social pressure that ensured the use of specific drugs capable of meeting the unique needs of individual groups of people. That is, farmers commonly encountered diseases and wounds specific to rural settings, while city-dwellers were exposed to an entirely different collection of infections and sources of trauma. Therefore, they cultivated and employed drugs that treated their own unique set of problems.

Non-medicinal drugs available in Roman society were used to poison and to adorn. The distinction between drugs used to alleviate suffering and drugs used for other reasons is oftentimes unclear; the chemical constituents of plants that have a biochemical impact on living creatures are generally toxic secondary metabolites, which the botanical world uses to prevent harmful attacks from irksome insects, hungry herbivores, and malevolent microorganisms. These substances produce a wide variety of biological consequences, including cellular malfunction, tissue injury, and organ failure. Depending

on the level of exposure, the damage caused by secondary metabolites can kill an animal or temporarily incapacitate it and thereby leave it with strong feelings of gustatory umbrage. Many of these sophisticated plant defenses act on the central nervous system of humans and produce changes in sense-perception and cognition. Most mammals find these neurotoxins disturbing enough to inspire them with absolute aversion, but humans can enjoy these experiences and thus target the plant for cultivation. Either way—avoided or cultivated—the plant gains the evolutionary advantage and survives by human cultivation. My third chapter deals with these botanical chemical constituents considers their use as poisons, while the fourth is concerned with the use of these botanical substances for cosmetic purposes. Each of these chapters embraces general considerations of early Roman pharmacy in order to illustrate the most rudimentary aspects of native Italian drug-craft. Where my presentation of Roman pharmacy differs from the interpretations of other scholars, I strive to show that our surviving Latin sources amply support my conclusions.

Chapter #1. *Rural Pharmacy*: This chapter examines pharmacy as it developed on Roman farming estates of the Republic. I argue that the template of early Roman medicine established by Pliny and supported by most modern scholars contradicts the evidence of our surviving literary sources. Pliny's exposition on the origins of medicine in Rome helped to create three fallacies: early Rome had no physicians; the art of medicine in Rome developed under the dominant influence of Greek medicine; and early Roman pharmacy was simply a combination of magic, superstition and religion—collectively known as folklore. I attempt to refute each of these assertions in the hopes of

bringing to light native Roman pharmaceutical practices of the Republic and early Empire. I believe our sources show that rural medicine in Italy was strictly pharmaceutical in nature; Roman doctors (*medici*) were technical experts, trained in the preparation and administration of drugs. The physician was a medical-artisan, whose craft was similar to—and even directly compared with—the art of the metal-smith or fuller. Each of these professions trained its members in the use of specific media; smiths worked with metals, fullers with textiles, and physicians with drugs. Their usefulness was based upon an intimate knowledge of useful botanicals, and clearly surpassed that of any member of the farming estate. Physicians were considered a valuable commodity on the farm, and were consulted when the overseer and his staff were not able to treat the specific medical problems of slaves and animals belonging to the estate owner. The medical-artisan was hired on a contractual basis, and provided his medical knowledge as a resource in the treatment of humans and all sorts of animals.

Chapter #2. Urban Pharmacy: The crowded conditions in Rome necessitated a distinct approach to the use of drugs. The rate of infectious disease in the city appears to be much higher than that of the surrounding countryside. Endemic diseases were common recurrences in Rome, while serious epidemics periodically threw the city into chaos. The rapid spread of previously unnoticed diseases tended to worsen the plight of the city-dweller; when plagues struck Italy, crowds of fearful rural inhabitants tended to augment the problem by gathering in Rome, and sometimes even brought with them their infected livestock, which further spread disease. Microbial pathogens flourished under these circumstances as desperate Romans attempted to remedy their suffering with a number of local and imported drugs. The nature of city-life fostered the perpetuation of

easily transmitted diseases; virulent bacteria and viruses developed their own peculiar niches in the urban environment: from pneumonia and dysentery, to herpes and genital warts, life in Rome perpetuated the successful spread of opportunistic microorganisms. Farmers may have been exceptionally susceptible to work-related diseases like tetanus and scabies, but city-dwellers were likely to encounter infectious diseases that could easily spread from one person to another in the midst of the hustle and bustle of the streets and market places of Rome. Like their rural counterparts, city doctors employed drugs almost exclusively, but did not seem to work on a contractual basis. Instead, they set up stalls and market shops, where they could meet with patients and sell the drugs they had prescribed. In this sense, pharmacy found a stationary or settled existence in the city; country doctors made villa-calls, while city doctors had patients come to them. The evolution of urban medicine was a reaction of doctors to the particular conditions of the city.

Chapter #3. Poisonous Drugs: This chapter supports a single important conclusion about the use of drugs in the Republic: poisons, poisoning, and poisoners were dangerously widespread elements of Roman society. Murder by poisoning was practically universal; in the Roman mind, strong drugs and lethal poisons were indistinguishable entities, known collectively as *venena*. Poisonous plants were readily available, because they were used to treat disease and were never subject to any sort of regulatory board. The need to outlaw certain plants was never considered, because the same plants had been used for generations as medicines. Even when threatened by public poisoning conspiracies, Roman governors responded with legal proceedings meant to punish the guilty rather than ban their weapons. Despite frequent trials for poisoning, and

poisoning conspiracies, the Republican Senate never attempted to restrict public access to potentially lethal drugs. In fact, our literary sources display a certain cultural fascination with poisons and the art of the poisoner. Poisonous botanicals became a widespread tool for revenge, greed and political ambition. They granted the poisoner a valued anonymity, an ability to strike from a distance without serious fear of capture. Unlike the dagger or sword, drugs disappeared with the crime. Trials for poisoning were usually successful only because the murderer was caught before the act could be carried out, with the poisons on his person, or in the company of his slave. Physicians were often implicated in these plots as a result of their peculiar knowledge of the physiological effects of drugs, and their ability to prepare lethal poisons. From aconite to deadly nightshade, the Roman world never experienced a shortage of powerful poisons; when placed in a cup of wine—the usual method of administration—many poisons were virtually undetectable, and even when discovered, it was often too late to prevent the victim's demise. The clean and efficient use of poisons met the needs of power-hungry Roman aristocrats: lethal drugs became a useful tool for the manipulation and control of political and financial power. Warring enemies of the political arena used drugs in their struggle to ascend the highest offices of state and secure their own fiscal well-being. Murder-by-poison in Republican Rome gave prominent families a good reason to fear the craft of pharmacy.

Chapter #4. Cosmetic Drugs: This chapter is an introductory examination of the use of specific types of cosmetic applications, including perfumes, unguents and face makeup. Personal hygiene was an important cultural aspect of daily life in Rome. Our surviving sources suggest that Roman society despised those who were ill-kempt and poorly groomed. Personal hygiene was a difficult prospect in antiquity, but the Roman

world compensated for this delicate problem by the liberal application of cosmetic drugs. The Romans displayed a particular fondness for fragrant oils and spices imported from the east, and often associated perfumery with banquets, festivals and general merriment. In addition, funerary rites would have been impossible without unguents and perfumes to cover the stench of death and make offerings for the deceased to the gods of the underworld. Roman women adorned themselves with a combination of foundations and pigmented powders. Although makeup was often associated with weak morals, there is plenty of evidence to show that this view never prevented the Romans from fully appreciating the beautifying properties of their botanicals. This chapter could easily consider other aspects of personal hygiene, like dental care and proper coiffures, but I have restricted my consideration of the topic to simple botanical cosmetics.

Conclusion

The pharmacy of early Rome is a much neglected topic of modern academic research. Roman medicine of the Republic and Empire has received much more attention, and some authors have looked at the use of specific drugs and medications, but most of our understanding of Roman pharmacy comes strictly from medical sources written during the first century A.D. or later. However, our Republican literary sources are a veritable gold mine of information on the use of drugs in early Rome. The poets, playwrights and historians of the Republic preserved unique and oftentimes interesting perspectives on the use of drugs in everyday life. In reviewing these sources I have isolated and focused my research on several distinct aspects of Roman pharmacy, including rural and urban drug use, poisonings, recreational drugs and cosmetics. It is

my hope that this examination of early Roman pharmacy will generate greater interest in doctors and drugs in Roman society and shed some light on the impact of drugs on Roman literature and culture.

Chapter #1: Rural Pharmacy

Introduction

No medical literary sources survive from the Roman Republic. Our earliest Latin texts include the works of Celsus and Scribonius Largus, which date from the early to mid-first century A.D. Despite their value, they present little evidence concerning the agrarian practices of early Roman medicine. Because of this accident of history, scholars have traditionally relied upon Latin agricultural manuals to investigate the earliest forms of rural medicine in the Italian countryside.¹ Although these agrarian works contain a great deal of evidence on Roman physicians and their drugs, modern scholarship tends to view them through the lens of Pliny's somewhat nostalgic interpretation of early Roman medical practice, which directly contradicts much of the evidence found in our non-medical literary sources. Three of his propositions directly conflict with our Latin sources and have, for centuries, confused our understanding of medical practices from the Republic: first, that Roman medicine was practiced by the head of the farming estate, or the *pater familias*; second, that Greek medicine influenced Roman medicine heavily because its rational approach was in direct conflict with native Italic traditions; and third, that early Roman medicine was a combination of magic, religion and superstition that we collectively label 'folk medicine.' This chapter will reveal the problems with Pliny's arguments by presenting evidence from our earliest Latin sources that directly contradicts them. Furthermore, I will use Republican farming manuals to bring to light the existence of the Roman 'medical-artisan,' a technical expert who practiced human and veterinary

¹ Particular attention has been paid to Cato's *De Agri Cultura*, and Varro's *De Re Rustica*.

medicine while assisting overseers and herdsman with the care of all living property found on the farm. Republican doctors were not simply the Italian equivalent of Hippocratic physicians, but were highly skilled drug experts. Furthermore, I will show that early Roman medicine was strictly pharmaceutical; drugs were the most valuable weapon in the war against disease, and physicians were trained as drug-craftsmen. Medicine of the Republic was pharmacy as it was practiced by shepherds, farmhands, trained experts and their various assistants. Farmers, slaves and animals were all vulnerable to a host of acute and chronic diseases, which could easily maim and kill their unfortunate victims. Slaves and cattle represented wealth and resources; on the large farming estates of the Republic, the absentee landlord relied upon the trained expertise of the medical-artisan to guarantee the well-being of his lucrative agrarian business.

The Myth of the Pater Familias as Physician

Clifford Allbutt's Greek Medicine in Rome, written in 1921, perpetuated the idea that the *pater familias*, the head of the Roman family, acted in the capacity of physician and dispenser of drugs during the Republic; this idea has come to dominate our understanding of the practice of medicine to such a degree that some authorities consider the Roman physician (*medicus*) to be nothing more than a figment of the imagination: "Hippocrates passed away; Alexandria sprang up; Greek medicine discovered the laboratory. And all this time the Romans had no physicians at all."² According to Allbutt and others, the heads of Republican farming estates oversaw the treatment and care of their own family members, slaves and cattle, without the aid or benefit of an

² G. Majno, *The Healing Hand: Man and Wound in the Ancient World* (Cambridge, 1975): p.339.

actual physician.³ This drastically distinguished Roman society from their contemporary Greek neighbors who relied heavily on a well-established corps of professional physicians. According to this view, Romans of the Republic had no need of skilled *medici*: “With a drive and perception of their own, the Romans traditionally chose to treat their own families, assuming that a *paterfamilias* was competent in *medicina*... This rule-by amateurs rejected the basic notion that a ‘professional’ was necessary to perform medicine in the Roman household...”⁴ Instead of depending on trained specialists, scholars accept the notion the Romans primarily relied on a primitive form of agrarian “self-help” to maintain the health and the well-being of their own families, slaves and livestock.⁵ This sprang from centuries of first-hand experience with drugs encountered in the agrarian environment, and was passed from generation to generation. The idea of a practical medicine transmitted from grandfather to father to son is quite well-suited to an idealized vision of the environment of the countryside farming estate, but is based almost exclusively on the views of Pliny the elder (23-79 A.D.), who looked back with naïve nostalgia on the “good old days” of the Republic when the *pater familias* was closely attached to the soil and entirely in control of his family and all subordinates.⁶ Pliny’s belief that the *pater familias* was independent of outside help or influence was based on his understanding of the great statesman and avid Hellenophobe Marcus Porcius Cato (234-149 B.C.), whom he saw as the ideal farmer-physician. Pliny’s Cato viewed Greek

³ T. C. Allbutt, *Greek Medicine in Rome* (New York, 1921): p.24.

⁴ J. Scarborough, “Roman Medicine to Galen,” *ANRW* (1991): p.13.

⁵ The phrase “agrarian self-help” was used by V. Nutton to describe early Roman medicine: L. Conrad et al. *The Western Medical Tradition* (Cambridge, 1995): p.39. Another author refers to this form of self-help as “private medicine,” but the sentiment is the same: J. Scarborough, *Roman Medicine* (Ithaca, 1969): p.23.

⁶ Pliny *Natural History* 29.8.15-16. Here, Pliny establishes Cato as his model of a *pater familias* overseeing the medical needs of his family.

medicine as useless and even dangerous, but vigorously employed his own farm-based curatives with great success:

“Atque hic Cato sescentesimo quinto anno urbis nostrae obit, octogensimo quinto suo...Quid ergo? Damnatam ab eo rem utilissimam credimus? Minime, Hercules. Subicit enim qua medicina se et coniugem usque ad longam senectam perduxerit...”

“This same man, Cato, passed away six hundred and five years after the founding of Rome in his eighty-fifth year...What then, should we believe that he disapproved of that which is most useful for life? Not at all, by heaven. He discussed the particular sort of medicine by which he brought himself and his wife to a ripe old age.”⁷

If we accept Pliny's conclusions, Cato's *De Agri Cultura* was, among other things, a primitive health manual designed to enable the inexperienced farmer to treat the diseases he may have encountered on his own estate. Such a work, or any like it, would have liberated farmers from any reliance upon any outside medical assistance; drugs collected from the garden or field were the tools of his trade employed exclusively by the *pater familias* and, thanks to Cato, the knowledge of proper pharmaceutical practices made it possible for any farmer to treat his family without outside interference from Greek physicians or their Roman counterparts.⁸ Cato and his contemporaries would have had

⁷ Pliny *Natural History* 29.15, my translation. The “sort of medicine/ *qua medicina*” Pliny refers to is the list of medications and prescriptions found in Cato's work on agriculture.

⁸ The uncertainty of this point can be seen in our modern considerations of early Roman medicine. For example compare the following assertions made by the same author but separated by a few years. “The *pater familias* was the dispenser of remedies of his household, and Cato drew up a list of medicines,” Scarborough (1969): p.19. “The *pater familias* gave all medical care to his household, or at least supervised the type of care given in his home, and Cato's list of medicaments was intended to be used by other *patres*,” Scarborough (1993): p.19. R. Jackson further reveals the difficulty of determining the medical functions of the *pater familias* by implying that outside assistance was sought when members of the household were actually sick: “Celsus' advice was aimed at the wealthy *pater familias* who was expected to know how to maintain his own health and that of his family without resorting to medical assistance except at times of illness.” R. Jackson “Roman Medicine: the Practitioners and their Practices,” *ANRW* (1993): p.87.

no use for professional physicians, because the medicine they practiced focused primarily on the proper use of drugs that could be found on any farming estate. Pliny's *pater familias* was the answer to the dishonest and greedy doctors of his own time; the farmer-physician was a fiercely independent and cunning landholder, who relied upon his native wisdom and family traditions to ensure the safety of his family and domestic animals. Pliny's vision is idyllic but practically untenable.

What kind of medicine was actually practiced on the farm, and was it truly the responsibility of a single man to treat his family, slaves and livestock? Did Pliny's father-physician truly exist? Such questions can only be answered when we consider the overwhelmingly dominant role of drugs in the practice of Roman medicine. Examples of Republican medical practices taken from early farming manuals seem to support the role of the *pater familias* as physician or *medicus* because medicine was free from any semblance of physiological or anatomical speculation and lacked any unified biological theories. Without these influences, Republican medicine depended most heavily on the use of specific drugs that were commonplace items on any farm.⁹ With one exception, all of the medical references in Cato's farming manual rely exclusively on pharmacy as means of restoring health and treating injury.¹⁰ Even basic surgery is absent from the texts. Therefore, from a reading of Cato's work alone it would appear that the overwhelming majority of early Roman medicine dealt with the proper use of drugs in the

⁹ Allbutt (1921): p.25 portrays the *pater familias* as the active farmer who stands in his own fields picking herbs. This contradicts the beginning of Cato's work where we see that the slaves under the *vilicus* did most of the actual labor. Allbutt also asserts that there were no pharmacists in Rome—in the same manner as he dismissed the existence of physicians. It is difficult to conceive of a society in which neither physicians nor individuals experienced in remedies existed; it is also difficult to accept this idea against the background of the dozens of drugs and remedies mentioned in Cato and Varro.

¹⁰ Cato's repair of a dislocation or fracture (*luxus*) in section 160 uses no drugs.

treatment of illness and injury. In essence, Republican medicine appears to be nothing more than the beneficial use of the plants familiar to generations of Roman farmers. It is entirely appropriate that an agriculturally based medicine such as this should depend exclusively on resources readily available to the farmer-physician. This dominant role of pharmacy in the treatment of the sick also seems to support the notion of the *pater familias* as physician. Despite the over-simplicity of this picture of early Roman medicine, one thing is certain: Republican medicine focused almost exclusively on the use of drugs in the treatment of disease and suffering.

Marcus Terentius Varro (116-27 B.C.), a prolific author and great man of learning, wrote an agricultural work comparable to that of Cato. Although he lived nearly 100 years after Cato, there is no reason to assume that basic farming technology changed significantly. If we were to accept the model of the head of the estate as physician to the family, slaves and livestock, we would certainly need to concede greater first-hand knowledge of drugs to Varro's predecessor Cato, since Varro rarely mentions specific recipes for drug concoctions, and when he does so they are far less complex. In fact, when both Cato and Varro are considered together, there appear to be some striking difficulties with the idea that the head of the estate acted as a physician on behalf of his family and livestock. Varro's classification of physicians as valuable skilled workers stands out as the most obvious contradiction to the idea of granting the *pater familias* the duties of a *medicus*:

"Itaque in hoc genus coloni potius anniversarios habent vicinos, quibus imperent, medicos, fullones, fabros, quam in villa suos habeant, quorum non numquam unius artifices mors tollit fundi fructum. Quam partem lati fundi divites domesticae copiae mandare solent. Si enim a fundo longius absunt oppida aut vici, fabros parent, quos habeant in villa, sic ceteros necessarios artifices..."

“For this reason farmers in such circumstances prefer to have in their neighborhood men whose services they can call upon under a yearly contract—physicians, fullers, and other artisans—rather than to have such men of their own on the farm; for sometimes the death of one artisan wipes out the profit of the farm. This department of a great estate rich owners are wont to entrust to their own people; for if towns or villages are too far away from the estate, they supply themselves with smiths and other necessary artisans to keep on the place...”¹¹

In this passage Varro considers physicians to be a class of skilled worker or artisan, similar to a fuller or a metal smith.¹² All three occupations share several important similarities; each represents a division of labor distinct from other forms of skilled labor, and distinguished by the particular media in which they work: fullers work exclusively with wool, smiths with metals, and physicians with drugs. In addition, each profession requires its members to possess a highly specialized knowledge, which in Roman society required payment or compensation; Varro would not have needed to worry about hiring a *medicus* if the job was actually the responsibility of the head of the estate. It is clear that Varro’s medical-artisan is something quite distinct from the image of the all-knowing *pater familias* described by Pliny.

Neither Cato nor Varro ever claimed to be a *medicus*. In addition, neither directly says the *pater familias* was a *medicus*. In addition, there are no ancient “job descriptions” for the *medicus*. Rather, the word used to describe physicians in these early texts is *artifex*, which designates a trained artisan or skilled craftsman. Lest this “medical-artisan” should appear to be an invention of Varro, the idea of hiring craftsmen can also be found in Cato, where he recommends that a new estate owner provide written

¹¹ Varro *De Re Rustica* 1.16.4. Translated by W. Hooper and revised by H. Ash.

¹² For the hiring of smiths see K. D. White *Roman Farming* (Ithaca, 1970): p.372.

instructions about the tasks he prefers his own slaves to perform and those which should be obtained by contract with laborers outside his domain.¹³ He also recommends the maintenance of good relations with one's neighbors in order to facilitate the sale of farming goods and to make possible the purchase of skilled and unskilled labor.¹⁴ Although Cato does not mention the specific jobs for which one would make such contracts, it is likely that he is speaking of skilled professions like that of the physician mentioned by Varro. From this, it appears that both Cato and Varro understood the necessity of hiring physicians in order to maintain the health of their families, slaves and livestock. Knowing how to prepare drugs and treat disease seems to have been the concern of skilled craftsmen who sold their services to local farmers in the form of contractual agreements. Like fullers and metal smiths, an understanding of the complex material elements of a specific trade made the *medicus* a valuable commodity to the managers of estates. Artisans were valuable because the services they performed helped to increase the profit of the farm. It seems unlikely that Cato would have risked the health of his herds and slaves—and their potential earning power—to his own experience, if indeed reliable medical practitioners were available.

The belief that the *pater familias* acted in the capacity of a physician during the Republic is also untenable on the grounds that the well-being of the living-property on the farm was clearly the designated responsibility of the overseer (*vilicus*). Modern scholars assume that Cato gave his advice to the *dominus* when he described the proper preparation and administration of curatives. If the *pater familias* or *dominus* was indeed

¹³ Cato *De Agri Cultura* 2.6. The text is quite clear: "*Quae opus sint locato, locentur.*" The work is definitely hired out on a contractual basis.

¹⁴ Ibid. 4. "*Si te libent vicinitas videbit, facilius tua vendes, opera facilius locabis, operarios facilius conduces.*" The same verb is used as that in 2.6. *Locabis* signifies a contractual arrangement.

the physician in agrarian society, there would be no problem with Cato's guidance. Such recipes would merely represent an attempt of the *pater familias* to hand down his extensive knowledge of drugs and medicine to other farm owners, so that they too could practice medicine in the place of a physician. However, Cato did not exclusively address the *pater familias* in his *De Agri Cultura*, but often directed his comments to the overseer (*vilicus*), the head slave who administered the daily affairs of the farm.¹⁵ The *vilicus* was undoubtedly the most important individual on the estate; his duties included the general oversight of farming productivity. K. D. White, in his work on Roman farming, acknowledges the economically valuable nature of this particular slave:

"The principle behind every operation on the farm is to maximize profit, and prevent waste. The absentee landlord for whom Cato wrote his manual expected that his investment in land, stock and slaves would yield him a steady return, year in, year out. The handling of the whole operation, including the treatment of the labour force, lay very largely within the discretion of the *vilicus*, who was himself a slave."¹⁶

The overseer's successful management of the farm was certainly the single most important factor in determining the financial stability of the estate. In fact, a comparison of the duties of the *vilicus* and *dominus* found in Cato's work shows that the overseer was much more involved in the daily activities of the farm than the owner himself—as we would expect on the large farming estates of the late Republic known as *latifundia*.¹⁷ Cato depicts the *pater familias* as nothing more than a temporary visitor to the farm, who

¹⁵ See A. Astin, *Cato the Censor* (Oxford, 1978): pp.191-2. There is often confusion as to the intended target of Cato's advice and words of wisdom. For the roles of different agricultural workers including the *vilicus* see White (1970): pp.353-7.

¹⁶ White (1970): p.358.

¹⁷ On *latifundia* see M. Cary and H. Scullard, *A History of Rome Down to the Reign of Constantine* (London, 1988): pp.187-91.

periodically stopped by to make sure that the *vilicus* had kept everything running smoothly. The overseer was responsible for much more of the daily business on the farm than the *dominus*. While his master was absent, the farm was entirely under his authority, and the responsibility for turning a profit rested squarely on his shoulders. Cato recommends ruthlessly interrogating the overseer in an attempt to find out whether or not he has been able to maximize the amount of work accomplished while the master was gone. He even says that the overseer should be reminded of things that can be done in inclement weather.¹⁸ When the overseer reveals that the farm has not been worked to its capacity, Cato anticipates his excuses and makes a concerted effort to prevent any future waste of human resources and labor potential. In this way the *pater familias* appears to be more of a majority share-holder than someone directly involved in the daily drudgery of running the business.

With respect to medical matters, Cato holds the *vilicus* directly responsible for the health of the slaves and demands that he answer to the *dominus* when the slaves have not been productive because of some physical problem. He does not blame himself, as landowner, for their ill-health, but directly criticizes his overseer for not having taken better care of them during periods of illness.¹⁹ Furthermore, Cato suspects that the *vilicus* will use health issues as a means of dismissing problems with the work force's

¹⁸ Cato *De Agri Cultura* 2.3: "Cum tempestas pluviae fuerint, quae opera per imbrem fieri potuerint, dolia lavari, picari, villam purgari, frumentum transferri, stercus foras efferri, stercilinum fieri, semen purgari, funes sarciri, novos fieri; centones, cuculiones familiam oportuisse sibi sarcire." Cato goes on to talk about other times when such duties could be carried out. It all seems to be an attempt to keep the overseer busy and to ensure that the slaves will be used to their greatest capacity.

¹⁹ Cato *De Agri Cultura* 2.4.

efficiency—a fact that seems to support the idea that the overseer, rather than the *dominus*, was solely responsible for medical treatment.²⁰

While the health of the slaves was certainly the responsibility of the *vilicus*, the maintenance of healthy herds was the responsibility of the head-herdsmen (*magister pecoris*), who was himself under the direct supervision of the overseer. He treated his master's herds for certain elementary medical problems by using the drugs he brought along with other necessary supplies: "The head-herdsman is to see that all the equipment needed for the animals and herdsmen, and especially for the sustenance of the men and the treatment of the cattle (*ad medicina pecudum*), shall accompany them."²¹ He wrote down and carried along specific prescriptions that would be useful in maintaining the health of the herd as well as fellow slaves. The head-herdsman treated people and cattle, but his understanding of medicine was limited to his own personal experiences, and he was forced to employ physicians when his knowledge and experience were insufficient:

"Quae ad valitudinem pertinent hominum ac pecoris et sine medico curari possunt, magistrum scripta habere oportet. "

"Whatever pertains to the physical care of men and animals, that is, whatever can be treated without the aid of a physician, ought to be written down and carried by the head-herdsman."²²

This particular example of medical treatment entirely excludes any consideration of or reliance upon the *pater familias*. The head of the Republican farming estate would certainly never accompany his livestock to pasture with the herdsman. The medical

²⁰ Cato *De Agri Cultura* 2.2; 2.4.

²¹ Varro *De Re Rustica* 2.10.5.

²² Varro *De Re Rustica* 2.10.10, my translation.

treatment of men and animals out to pasture was presumably the responsibility of the head-herdsman or any physician summoned when the disease or injury outstripped the talent of the herdsman. Written instructions were used by all sorts of herdsmen, including shepherds, goatherds and cowherds:

“De sanitate sunt multa; sed ea, ut dixi, in libro scripta magister pecoris habet, et quae opus ad medendum, portat secum...Quid dicam de earum sanitate, quae numquam sunt sanae? Nisi tamen illud unum: quaedam scripta habere magistros pecoris, quibus remediis utantur ad morbos quosdam earum ac vulneratum corpus...De sanitate sunt complura, quae exscripta de Magonis libris armentarium mecum crebro ut aliquid legat curo.”

“There are many duties concerning the health of the flock; but, as I already said, the chief shepherd has these things written down in a book, and carries with him the supplies he may use in their treatment...What can I say about the care of goats, which are by nature never healthy? This one thing can be said: the heads of the herds should keep things written down, namely which drugs are to be used to treat some of the diseases they get and the injuries they may receive...There are many matters touching the health of the herd (cows in this case) that I have taken from the books of Mago and require my head herdsman to read frequently.”²³

From statements like this it is obvious that the head of a flock or herd was directly responsible for the treatment of basic diseases. The *pater familias* was not involved directly in the administration of medicine at the level of the herd or herd-hands. The herdsman was under the authority of the overseer, who was ultimately responsible for the maintenance of the herd, but the medical duties were clearly his own responsibility. Furthermore, the head-herdsman answered to the overseer, and the overseer answered to the *dominus*. This practical hierarchy of the agrarian labor force, as it is portrayed by Cato and Varro, supports a single conclusion: the *pater familias* did not play the dominant role in medicine claimed by Pliny and advanced by modern scholars. Instead,

²³ Varro *De Re Rustica* 2.2.20; 2.3.8; 2.5.18, my translations.

the basic care of people and livestock on the farm was divided among different slaves who were ultimately under the watchful eye of the *dominus*.

The Myth of the Conflict between Roman and Greek Medicine

Pliny's questionable assertions about the nature of early Roman medicine have further prejudiced modern scholarship by assuming a dominant role of Greek medicine in Rome and by presenting traditional Roman and Greek medical practices as confrontational. Pliny believes that medicine, as a distinct profession, was never a part of Roman society and portrays Greek physicians as negligent and even intentionally harmful.²⁴ His argument tempts us to compare the merits of Roman and Greek medicine as co-competitors in a race of cultural dominance. Such comparisons often lead scholars to conclude that the Romans were far inferior to their Greek contemporaries: "In general, the Roman mistrusted the Hellenistic physician with his fancy theories. The Latin practical ability failed to perceive the value of theoretical speculation, and, by and large, left theory in the hands of the Greek physicians."²⁵ This simplistic approach to Roman medicine still dominates our understanding of classical antiquity. With few exceptions, historians embrace differences in native Roman practices and contemporary Greek ideas of healing as evidence of the primitive and inferior nature of Roman medicine.²⁶

²⁴ Pliny *Naturalis Historia* 29.17-18.

²⁵ Scarborough (1969): p.42.

²⁶ Nutton's lucid examination of Greek influences on Roman medicine acknowledges the inappropriate nature of such a comparison: "A comparison with what was going on in the Greek world only reinforces the suspicion of the inferiority of Roman medicine as the same time...Even when not condemned as charlatany, Roman medicine can thus easily be depicted as second-rate, at best a pale imitation of what was available in the Greek world." V. Nutton, "Roman Medicine: Tradition, Confrontation, Assimilation," *ANRW* (1991): p.51.

Histories of Roman medicine invariably adhere to the template designed by Pliny: Roman physicians were not needed until old-fashioned folkloristic values were eventually replaced by the superior medical speculations of the Greeks.²⁷ This means Republican medicine is usually divided neatly between traditional Roman practices and the introduction of enlightened Greek science. Pliny's model of early Roman medical development is pleasingly simple, but it betrays a number of conceptual and factual difficulties. For example, he says that two physicians, one probably an historical invention and the other purely mythological, brought Greek wisdom to Rome; this idea then directly influences modern perceptions of early Roman medicine. In fact, Pliny's invention has become a reliable standard for historians of medicine:

"In the course of its rise to power in the west, the Roman Republic attracted many Greek doctors. In 219 BC, Archagathus came to Rome from the Peloponnesus, and from this time Greek 'rational' and theoretical medicine influenced Roman approaches...Early in the third century BC, the Romans adopted Asclepius as one of their gods, and Rome came to know much of Hellenistic religious medicine so closely aligned with the common practice of medicine."²⁸

The supposed arrival of a Greek named Archagathus, described in detail by Pliny, has come to signify the symbolic ascendancy of theoretical Greek medicine over traditional Roman pharmacy.²⁹ Pliny's narrative concerning Archagathus is as naïve as it is simple. For example, it is highly improbable that an event like the arrival of the first Greek

²⁷ Allbutt (1921), Scarborough (1969; 1991), Majno (1975) and Nutton (1995) all follow this template to one degree or another. Modern histories of Roman medicine rely heavily on Pliny without questioning his veracity. It may be considered inappropriate to question Pliny because he was so much closer the events under discussion, but his presentation of Roman medicine is influenced by his personal dislike of Greeks and an overly nostalgic fondness of the past. Pliny is at best unreliable and at worst entirely wrong.

²⁸ Scarborough (1969): p.38.

²⁹ Pliny *Naturalis Historia* 29.12-13. Pliny is indeed our source once again for this misleading view on early Roman pharmacy and medicine.

physician was ever observed or even recorded.³⁰ Although Greek doctors clearly practiced medicine in Italy, it is impossible to state with any assurance a precise date for their arrival. Why then is the story of Archagathus central to modern histories of Roman medicine?³¹ The myth the first Greek physician enables us to establish a context for the coexistence of two such vastly different approaches to medicine. Pliny's account is inspiring because it allows us to settle a particularly bothersome question: how did such a 'primitive' form of medicine such as that found in the Roman countryside manage to flourish in the midst of a culture exposed to the far more rational and 'scientific' system of its neighbors? That is to say, Pliny viewed the influence of Greek medicine in Rome as a foreign invasion and handed down this convenient rationalization to future generations of medical historians. Modern scholars see Greek medicine as something significantly different from native Roman practices because of its scientific sophistication. This view, inspired solely by Pliny, assumes the existence of an underlying struggle for social dominance between Greek and Roman medicine. However, it is entirely possible that the Romans logically recognized the value of Greek medicine but preferred the practical nature of their own native pharmacy.

If this is an accurate assertion, our penchant for comparing Greek and Roman practices would seem to be the result of our own mistrust of the seemingly irrational aspects of early Roman medical practices. After all, Greek rationality is much more appealing to the modern western world. Although the obvious differences in Greek and Roman medicine are quite important to medical historians, they may not have presented a significant problem to Republican farmers. Traditional Roman practices may have

³⁰ This may follow some sort of paradigm for establishing the first recorded person of any craft.

³¹ See for example: Majno (1975): pp.339-40; Allbutt (1921): pp.176-7; Scarborough (1969): p.38.

coexisted amicably with Greek theoretical medicine, and these customs may have maintained a significant degree of independence as a result of their distinctly unique nature. Thus, the Romans practiced their own pharmacy as a form of medicine that was exclusive of Greek theory, but never in conflict with it, because their own native medicine held the greatest advantage for their daily lives.

Cato lies at the very center of our concern for the supposed conflict of Greek and Roman medicine. Cato was certainly no lover of things Greek, yet it is well known that his studies in Greece influenced his writings, and often it is difficult to reconcile his Hellenophobic reputation with the work he produced:

“At times the paradox has been seen as sharper still: anxious to ‘know his enemy,’ he was led to study Greek literature more intensely than many of the indiscriminating philhellenes about him; through the very means by which he sought to counter Hellenic influences he was unwittingly creating the basis for a true synthesis of Greek and Roman cultural values.”³²

Cato studied Greek literature and may have used Greek sources when he composed his work on agriculture. However, are his discussions of Roman pharmacy an accurate reflection of native Roman practices or are they also influenced by certain Greek models?³³ This question is best answered by examining his references to Greeks, and not by a comparison of similarities with other Greek texts—Theophrastus for example. The former approach will allow us to see Cato’s own methodology, whereas the latter will only enable us to conclude that Greeks and Romans held some common views on the use of plants as medicaments. Similarities in classical medical prescriptions may just reveal

³² Astin (1978): p.157.

³³ It is apparent that Cato consulted some form of notebooks or *commentarii*. See Astin (1978): p.194.

the common usage of particular plants found in widespread regions, but do not necessarily reflect some form of cultural borrowing.

Cato refers to Greeks directly in his *De Agri Cultura* ten times. Of those references, one concerns Greek mill equipment, two mention Greek wine, and the rest relate to plants variously associated with Greece.³⁴ Greek farming equipment, Greek wine and Greek plants were not dominant cultural advances, but were tools used by the Roman farmer. I suspect that Roman farmers viewed medicine in the same way. For Cato, the use of medicinal plants was a means to an end, not the property of a single ethnic or intellectual group. Surely we should not conclude from these references that Roman wine-making was non-existent because the 'slow-witted' Romans were not able to comprehend the lofty ideas of their more advanced wine-making Greek neighbors. Nor can we presume that the dispersion of Greek medical knowledge in Rome proves that Roman physicians were non-existent. Romans drank Greek wine and used some Greek names for plants and diseases, but their dependence on 'things Greek' was not a substitute for their employment of 'things Roman.' Roman physicians, who primarily practiced pharmacy, borrowed drugs and drug knowledge from their Greek neighbors, but practiced within the bounds of their own native medicine. Cato may know the Greek names for specific plants, but this does not mean that Greek medicine either conflicted with or replaced the pharmaceutical practices of the Romans.³⁵ Greek and Roman

³⁴ Greek mill equipment, Cato *De Agri Cultura* 3.5; Greek wine, 24 and 105; Greek plants, 6.4, 8.2, 27, 35, 37, 40.2 and 40.3.

³⁵ Cato concerned himself to some degree with the Greek names of plants: Cato *De Agri Cultura* 102. When speaking of a specific plant he says: "...medici vocant zmyrnæum." This could indicate several things. He could be referring to Greek doctors writing about this plant, or he could be speaking of Roman doctors who happen to use the Greek name of the plant. Because he does not specify what kind of physicians he speaks of, it is wrong to assume that they are Greeks because they use a Greek name. This is tantamount to claiming that all English professors who use the word 'genre' are actually French in origin.

medicine of the Republic harmoniously coexisted as entirely independent entities, neither of which was in direct conflict with the other. The differences in Roman and Greek medicine need to be discovered and described, not reconciled.

The Myth of Roman Medicine as 'Folklore'

Drugs, in the form of botanicals and mineral compounds, are the concrete elements of early Roman medicine. They are the 'contextual artifacts' of a lost history, buried in the works of historians and poets who unintentionally trapped pharmaceutical mosquitoes in literary amber. Despite the wealth of evidence that can be gleaned from our non-medical sources, the usage and efficacy of many prescriptions from this period are poorly understood. This is largely because Roman pharmacy lacks any sort of cohesive theory and requires a first-hand knowledge of drug therapy from those attempting to understand its usefulness; early Roman pharmacy is strictly empiric in nature, and its 'science' is only comprehensible when examined in the light of experience. For the modern world, the practices of Varro's medical-artisan are confusing and even mysterious. Traditional customs practiced by Roman farmers are perplexing for us, and easily misunderstood performances quickly slide into a 'catch-all' category known to us simply as "folklore", or magic.

Once again, the instinct to lump together early Roman medical practices into such an all-encompassing category was first set forth by Pliny. In his opinion, ancient magic developed from medicine, and eventually incorporated aspects of religion and astrology.³⁶ Some scholars relegate Roman pharmacy to this ambiguous realm of

³⁶ Pliny *Naturalis Historia* 30.1-2.

uncertainty in order to manage material that openly defies our modern expectations of medical science:

“Although a kind of rationality was characteristic of early Roman medicine, our sources consider only remedies. Diagnosis, prognosis, and regimen were not taken into significant consideration. This pattern is unusual, since in the normal development of popular medicine in uncivilized tribes, these matters receive much emphasis. Religious cures were rare but magical treatment was common.”³⁷

Confused about the techniques employed by Rome’s medical-artisan, and unwilling to accept our inability to understand a discipline that should be rational, we transfer our own confusion to the minds of our ancient sources. Where we are unsure about specific practices we conclude that they must have been practicing magic:

“Magic steeped the folk traditions in Cato’s ‘On Agriculture,’ a magic which promised definite results from exact practices. Cato’s *medicina* and the recipes and prescriptions for cures follow meticulous and all-inclusive customs wrapped in the verbiage of a pre-historic Italy, and clearly Cato does not comprehend the meaning of many of the words he chooses to record in magico-medical spells and remedies. The agricultural context is apparent in the chants which accompany the magical therapies, but the words—in Cato’s day as well as ours—are completely obscure in their meaning and origin.”³⁸

Finally, in defense of our own ‘rational’ sciences, we declare Roman pharmacy to be nothing more than a cultural opiate. After all, it is much easier to understand and appreciate obscure cultural practices once they have been deemed the result of superstition rather than reasoned human observation:

³⁷ Scarborough (1969): p.16.

³⁸ Scarborough (1993): p.15.

“Folk-medicine, whether independent or still engaged with religion and custom, belongs to all peoples and to all times, including our own; it is not the appanage of any nation; it is rooted in man, in his needs, and in his primeval observation, instinct, reason, and temperament. Still it is largely modified by the kind of man; for instance in the Greek, folk-medicine was soon separated from theurgic medicine, and even from mysticism; so that the natural and scientific medicine was more quickly conceived and built up. The necessarily skeptical attitude of professional medicine...was for the ceremonious, slow-witted, and dogmatic Roman...intolerable...To folk medicine doubt is unknown; it brings peace and security.”³⁹

Early Roman medical practices are often described as a hodgepodge of religion, magic and superstition—appropriately rolled into one big sociological ball and conveniently labeled ‘folkmedicine.’ However, there is one basic problem with this elaborate interpretation of Roman pharmacy: farmers live in a universe that demands concrete results from simple tools. Consequently, the bits of Roman pharmacy found in Cato and Varro rely upon fundamentally simple means, not magic, to ensure the health and productivity of that which belongs to the *dominus*.⁴⁰ Viewed in this context, early Roman medicine makes much more sense.

In order to understand the essential practicality of Roman medicine, we must examine the passages of our Latin texts traditionally deemed to be most ‘magical.’ To see these instances in the light of agrarian rationality is the greatest proof of the sensible nature of early Roman medicine. The conceptual basis for the argument that magic and superstition are part of the folk medicine of the Romans comes from the 160th chapter of Cato’s *De Agri Cultura*. The magical qualities of this apparent charm or incantation have never been seriously questioned:

³⁹ Allbutt (1921): p.21.

⁴⁰ This conclusion is based upon the premise that Cato and Varro intended to write empirical treatises rather than ideological works.

“Luxum siquod est, hac cantione sanum fiet. Harudinem prende tibi viridem P. IIII aut quinque longam, mediam diffinde, et duo homines teneant ad coxendices. Incipe cantare: ‘motas vaeta daries dardares astataries dissunapiter,’ usque dum coeant. Ferrum insuper iactato. Ubi coierint et altera alteram tetigerint, id manu prehende et dextera sinistra praecide, ad luxum aut ad fracturam alliga, sanum fiet. Et tamen cotidie cantata et luxato vel hoc modo: ‘haut haut haut istasis tarsis ardannabou dannaustra.’ ”

“Any kind of dislocation may be cured by the following charm: Take a green reed four or five feet long and split it down the middle, and let two men hold it to your hips. Begin to chant: ‘motas vaeta daries dardares astataries dissunapiter’ and continue until they meet. Brandish a knife over them, and when the reeds meet so that one touches the other, grasp with the hand and cut right and left. If the pieces are applied to the dislocation or the fracture, it will heal. And none the less, chant every day, and, in the case of a dislocation, in this manner if you wish: ‘haut haut haut istasis tarsis ardannabou dannaustra.’ ”⁴¹

The treatment of a dislocation or fracture by chanting nonsense words seems to be a clear instance of ancient magic and superstition.⁴² The strange use of the reed is perplexing and heightens the mysterious nature of this peculiar event. Fritz Graf, in his work on magic in antiquity, provides an interpretation of the events taking place here:

“The structure of the ritual is easily understood. There are preparatory acts: one takes a rather long (four or five feet) reed and splits it (lengthwise, a rather tricky operation); two servants press the halves against the hips of the outstretched patient. Then the rite proper begins. Slowly the servants bring the two halves together, while the master-doctor sings the text; a piece of iron is put on the patient’s limb. When the two halves of the reed are joined, they are shortened to the

⁴¹ Cato *De Agri Cultura* 160, translated by W. D. Hooper and H. B. Ash (rev.).

⁴² This song or chant is usually considered to be the mark of magic, but along with this association comes the implication that the average Roman farmer who used such cures was quite foolish. For example, see Majno (1975): p.341: “Native Romans could not possibly compete with these people (the Greeks)—who had nine rational ways to reset a shoulder, to mention only one problem—when the best the Romans could do to the same end was to bind on two pieces of a green reed and sing over them the gibberish of Cato the Censor. ‘Haut haut haut istasis tarsis ardannabou dannaustra.’ There was no choice, to use Pliny’s sarcasm, but to be ‘swept along on the puffs of the clever brains of Greece.’ ”

right and to the left (the halves had been passed above the ailing person), and then the whole is attached to the affected limb.”⁴³

It all sounds wonderfully supernatural, but there is one glaring problem: as a magical rite, this ritual would do absolutely nothing to treat a dislocation or fracture. The *dominus* would be left with a maimed slave, and as a result, would be unlikely to use such a procedure ever again. That is, as a magical formula, the incantation is entirely useless. It is difficult to believe that a practical farmer like Cato, so concerned with the economic value of his slaves, would ever use such an ineffective procedure or recommend it to any would-be farmer.

This excerpt of Cato's work is indeed confusing, but such a simple treatment for dislocations may make more sense if we consider it nothing more or less than just that—a simple treatment for dislocations. What do fractures, broken bones and dislocations have in common? The answer is simple: some part has been displaced and must be put back in its proper location despite the antagonistic forces of tendons, ligaments and muscles. This requires good timing, a strong splint and a bit of luck. After all, Roman farmers and their herds doubtlessly encountered broken bones and dislocated joints on a regular basis, and undoubtedly required a simple and readily applicable remedy. In treating injuries such as this, bones must be repositioned by means of rigorous manipulation in order to restore their original positions. Setting bones and reducing fractures properly is critical for adequate healing; poorly set bones can limit the function of arms and legs, and thereby create significant economic loss to anyone depending on slave labor and livestock. Avoiding such losses requires careful timing and coordinated manipulation. How then could Cato's 'magic' ever be helpful?

⁴³ F. Graf, *Magic in the Ancient World* (Cambridge, 1997): p.44.

Cato's song was chanted while the bone was forced back into place, only after the proper position was determined and fixed with the aid of the two reed-halves. Once it was decided that the two halves were in their proper positions, according to precise mathematical proportions, they were cut to the appropriate length and tied in place. The words of the two songs are undeniably nonsensical, but their value can be found in their metrical qualities rather than their meaning. That is, the songs probably kept time for medical-artisans or farmhands who needed to coordinate their movements so that the injured part could be put back in its natural position and set there. The chants provided the necessary timing mechanism for this procedure, and like a modern nursery rhyme, were easier to remember than complex instructions on the coordinated manipulation of bones and joints. In a very straightforward manner, the green rods provided a means of measuring length and linearity, while the rhyme ensured proper timing. One can imagine experienced overseers and shepherds quickly estimating and marking the normal position of a broken limb and then swiftly stretching and popping it back into place with movements coordinated by a musical chant. The whole remedy is brilliantly simple, and precisely what one would expect from the intensely practical world of the ancient farm. The only magic in this clever method of fracture reduction is the ease with which it could be taught to anyone on the farming estate.

Cato's prophylactic treatment of cattle in chapter 70 has also been labeled as a magical remedy; its repetition of the number three defies our understanding of good pharmaceutical science, and so it is considered another example of questionable folklore:

"Bubus medicamentum. Si morbum metues, sanis dato salis micas tres, folia laurea III, porri fibras III, ulpici spicas III, alii spicas III, turis grana tria, herbae Sabinae tres, plantas tres, rutae folia tria, vitis albae caules III, fabulos albos III,

carbones vivos III, vini S. III...Per triduum de ea potione uni cuique bovi dato. Ita dividito, cum ter uni cuique dederis, omnem absumas..."

"Remedy for oxen: If you have reason to fear sickness, give the oxen before they get sick the following remedy: 3 grains of salt, 3 laurel leaves, 3 leek leaves, 3 spikes of leek, 3 of garlic, 3 grains of incense, 3 plants of Sabine herb, 3 leaves of rue, 3 stalks of bryony, 3 white beans, 3 live coals, and 3 pints of wine...Administer to each ox for three days, and divide it in such a way that when you have administered three doses to each you will have used it all..."⁴⁴

Once this repetition of the number 3 is considered magical the whole remedy seems subject to special scrutiny:

"Again, a combination of magical folklore with a wide range of herbal specifics is characteristic (of Roman medicine)...The magic of number—three of this and three of that—forms a linkage for the whole recipe, in keeping with a venerated tradition of magico-medical numerology amply documented by Thorndike...To use a wooden vessel suggests the recipe is an ancient one, indeed, well-encrusted with the patina of centuries..."⁴⁵

Specific numbers and their repetition may have been significant to the practice of magic in antiquity, but this does not mean that they served the same function in this particular prescription. This complex mixture of drugs contains no less than twelve ingredients. In addition, it must be administered repeatedly to all the animals in the herd. Depending on the number of cattle, the farmhands in charge of this operation could potentially prepare and administer hundreds of doses. The task of treating a large number of animals over an extended period is particularly daunting, and could easily confuse the busy herdsman. However, if the entire remedy were based on a single number, it would be much easier to remember all of the details. That is, the 'magic' here is probably just a useful mnemonic

⁴⁴ Cato *De Agri Cultura* 70, translated by W. D. Hooper and H. B. Ash (rev.).

⁴⁵ Scarborough (1993): pp.16-17.

device designed to facilitate such a complicated undertaking. This way, those preparing and administering the complex drug mixture would only need to remember the specific ingredients, a much easier task than memorizing a dozen measurements.

Other ‘magical’ elements of this prescription appear much more practical when examined in the context of farming alone: forcing animals to swallow large amounts of fluids—not to mention that garlic, incense and wine are probably quite offensive to the taste buds of ungulates, and were undoubtedly received with little enthusiasm—can be facilitated by forcing the unwilling participant to stay in an upright position; this would prevent any twisting or crimping of the esophagus, and thereby provide a clean shot to the stomach. In fact, as any large animal veterinarian could attest, administering medicine from above the head of an animal (*sublimiter*), so as to maximize accessibility of the stomach, is prudent practice. It also seems quite clever to recommend the use of wooden vessels to dispense this concoction; wood may have flexed under the pressure of unwilling jaws and would not have shattered and left potentially harmful shards in the mouths of the master’s herd.⁴⁶ Once again, this ‘magic’ prescription seems to be concerned with common sense matters of health rather than the supernatural.

The classification of Roman pharmacy as the particular blend of magic, religion and superstition known as folk medicine or folklore is poorly supported by our ancient texts on farming. For example, in several instances Cato and Varro themselves condemn the use of magic. Although the words for magician (*magus*) and magic (*magia*) do not appear in these early texts, there are several clear warnings against the use of divination

⁴⁶ After all, bleeding mouths and shard-filled stomachs don’t make for happy, healthy, profitable cows.

and soothsaying in the *De Agri Cultura* and the *De Re Rustica*.⁴⁷ The close association of fortune telling with magic in antiquity supports the notion that Cato and Varro included magic in their discussion of soothsaying. Cato expressly forbids his *vilicus* from consulting with a diviner (*haruspex*), seer (*augur*), soothsayer (*hariolus*) or astrologer (*Chaldaeus*).⁴⁸ Graf believes this prohibition was based on Cato's desire to limit expenses, but it may also have been inspired by the unreliable and impractical nature of divination.⁴⁹ Once again, Roman farmers were motivated by results, not theoretical speculation, and divination was far too unreliable to use as an agricultural tool. In addition, Varro mocks the foolishness of those who listen to diviners (*haruspices*) when trying to perform common farming operations like grafting. He refutes Etruscan augury with a basic appeal to common sense gained from farming experience:

"Non enim pirum recipit quercus, neque enim si malus pirum. Hoc secuntur multi, qui haruspices audiunt multum, a quibus proditum, in singulis arboribus quot genera insita sint, uno ictu tot fulmina fieri illud quod fulmen concepit.

"You cannot, for instance, graft a pear on an oak, even though you can on an apple. This is a matter of importance to many people who pay considerable attention to soothsayers; for these have a saying that when a tree has been grafted with several varieties, the one that attracts the lightning turns into as many bolts as there are varieties, though the stroke is a single one."⁵⁰

⁴⁷ For a good discussion of the origins of the terms for "magic" and "magician" see Graf (1997): pp.36-41. Graf provides an historical overview of the words that is relevant to a discussion of magic and medicine: "In the language of the Romans of the republican era, *magus* and *magia* thus did not refer to magic. The words began their career as ethnographic terms in the prose of Cicero, and then as learned Hellenistic expression in the poetry of the early years of Augustus and referred, at least in Virgil, to the exotic rites already beloved of the Alexandrians." Ibid. p.39.

⁴⁸ Cato *De Agri Cultura* 5.4.

⁴⁹ Graff (1997): p.49.

⁵⁰ Varro *De Re Rustica* 1.40.5-6, translated by W. D. Hooper and H. B. Ash (rev.).

Cato and Varro condemn the actions of a group of seers (*haruspices*) believed by modern scholars to have played a role in early Roman medicine.⁵¹ In fact, there is no direct evidence from our Republican texts that Roman *medici* ever employed divination specifically for medical purposes. There are far too many problems with our modern dependence upon the term folklore as a means of explaining the poorly understood practices of Roman pharmacy. When we consider the proper context of early Latin agricultural works, namely the soil, the herd and the struggle to maintain profits, the admonitions of Cato and Varro seem far more explicable; farming demanded the existence of a medicine that was practical, straightforward and artfully simple. The medical treatment found in early Republican literature satisfies the needs of the agricultural community. The medical-artisan used his expert knowledge of drugs, with or without the aid of magical incantations, to promote and restore the health of those who lived and worked on farms.

Human Medicine

The agricultural manuals of Cato and Varro tell us much about the sufferings of Republican farmers. All of the human diseases specifically mentioned in their works fall within three categories based on the variously affected regions of the body: digestive, urinary, dermatological, and skeletal. The infectious diseases found so commonly in sources concerned with urban environments are conspicuously absent from these rural

⁵¹ For example, Scarborough (1993): pp.9-12 implies that the Roman understanding of anatomy was derived from Etruscan haruspication as it was filtered through religious practices.

sources,⁵² but this fact alone does not preclude the possibility that such illnesses severely affected members of the farming estate as well as the city. It is likely that Cato and Varro avoid mentioning most communicable diseases for a number of obvious reasons. First of all, the low population density of the Italian countryside undoubtedly decreased the spread of contagious diseases of viral and bacterial origin, which would have made the morbidity rate from these diseases much lower in agricultural environments than in crowded urban centers.

Secondly, treating potentially lethal infectious diseases was probably the responsibility of medical-artisans rather than the overseer or herdsman, because such diseases would have been far less common than other ailments encountered on the farm. That is, Cato and Varro mention only those diseases considered to be the most easily treatable by the farming staff—both in terms of the frequency with which they were encountered and their susceptibility to treatment—and refuse to intrude into the realm of the medical expert (*medicus*), where the farmer's knowledge of pharmaceutical therapy was particularly weak. The diseases found in Cato and Varro are perhaps the most visible if not the most common farming complaints, and each resulted in varying degrees of debility. Once again, our authors betray a sincere concern for the functional nature of their human 'property' and the careful management of such a valuable resource. Sick slaves meant fewer working hands, and this in turn led to decreased productivity and diminished profits.⁵³

⁵² See Chapter #2, where I discuss the commonly encountered diseases in large urban centers of the Republic.

⁵³ This particular approach to Roman pharmacy emphasizes the utilitarian focus of rural physicians and others who administered curatives, but this should not be surprising when we consider that plants have been cultivated and engineered for most of human history just for the sake of their particular effects on the body. As eloquently demonstrated by G. Higby, the use and development of pharmaceuticals has always been

The Republican *dominus* may have preferred to have healthy slaves but our texts mention a number of diseases that appear to be common to the agrarian environment. The most commonly encountered diseases of the countryside appear to be problems associated with the digestive system. Intestinal gripes such as colic (*tormina*, *coeliacus*),⁵⁴ intestinal worms (*taenia*, *lumbricus*)⁵⁵ and general indigestion (*alvus cruda*, *dyspepsia*)⁵⁶ occur frequently in Cato along with their particular pharmaceutical remedies.⁵⁷ Colic and indigestion can be caused by a number of pathogens, improper nutrition, internal injuries and simple mechanical obstructions. It is difficult to name any specific diseases or syndromes that might have been causing Cato's intestinal complaints, but it is likely that they occurred for a variety of reasons. Unlike generalized abdominal

influenced by the practical aspects of the usefulness of plants for human survival: "Among the several characteristics unique to *Homo sapiens* is our propensity to treat ailments, physical and mental, with medicines. From archaeological evidence, this urge to soothe the burdens of disease is as old as humanity's search for other tools. Like the nodules of flint used to make knives and axes, medicines rarely occur in nature in their most useful (or palatable) form. First, the active ingredients or *drugs* must be collected, processed and prepared for incorporation into medicaments. This activity, done since the dawn of Man, is still the central focus of the practice of pharmacy. Put another way, pharmacy is, and has been, the art (and later science) of fashioning one of our most important tools—medicines." Higby, "Evolution of Pharmacy," Remington's Pharmaceutical Sciences, 18th ed. (1990): p.8. Stated this way, pharmacy appears to be the natural result of man's search for curatives; a search that has lasted for generations and has mounted an admirable defense against some of the greatest causes of suffering and death. This utilitarian approach seems to be in direct conflict with most of our accepted notions concerning the superstitious approaches of 'primitive' societies to the use of drugs. Most historians try to explain humankind's quest for curatives as an attempt to grapple with the unknown, but this leaves us with one important problem: superstition, magical practices and religious ceremonies can neither treat gout, nor alleviate severe pain. Drugs can—and for this reason alone they have been the focus of man's attention for thousands of years.

⁵⁴ Cato *De Agri Cultura* 125; 157.5.

⁵⁵ Cato *De Agri Cultura* 126.

⁵⁶ Cato *De Agri Cultura* 125; 127.

⁵⁷ It is important to note that Cato uses both Latin and Greek terms to describe his illnesses. This is yet another example of Greek and Latin medicine existing side-by-side without direct conflict. These common diseases of the digestive tract were known in both cultures. It is entirely unnecessary to conclude that the presence of Greek medical words in Latin indicates the predominance or ascendancy of Greek medicine over native practices in Rome. For example, the presence of Keyser-Fleischer rings in patients treated in the United States does not mean that German physiological theories of the twentieth century dominated contemporary North American medicine.

problems, intestinal parasites in humans are caused by a limited assortment of organisms. Cato's intestinal worms (*taenia*, *lumbricus*) could have been tapeworms, roundworms, protozoa or possibly even flukes, but a limited number of parasites would have been visible in antiquity, and therefore the likely candidates are fewer. For example, the giant intestinal roundworm, *Ascaris lumbricoides*, spends part of its lifecycle in the small intestine where it has sex at its own leisure and produces as many as 200,000 eggs every day. It may reveal its unwelcome presence by appearing in the stool or vomit of its host and can cause a variety of symptoms including abdominal pain (colic), vomiting and fever.⁵⁸ *Taenia solium*, a tapeworm found in undercooked pork, also lives in the intestines of humans and can be visualized quite easily in the stool of its host. It can grow to a length of several meters, and like the giant roundworm, it causes a variety of intestinal problems including chronic indigestion, abdominal pain and diarrhea.⁵⁹ One of Cato's remedies for helminthiasis (worm infestation) is elegantly simple:

“...et si taeniae et lumbrici molesti erunt. XXX mala Punica acerba sumito, contundito, indito in urceum et vini nigri austeri congios III. Vas oblinito. Post dies XXX aperito et utito; ieiunus heminam bibito.”

“...for tapeworms and stomach-worms, if troublesome: Take 30 acid pomegranates, crush, place in a jar with 3 congii of strong black wine, and seal the vessel. Thirty days later open and use. Drink a hemina before eating.”⁶⁰

⁵⁸ For basic information on *Ascaris lumbricoides* see: Murray et al. *Medical Microbiology* (St. Louis, 1998): pp.648-50.

⁵⁹ For basic information on *Taenia solium* see: Murray et al. (1998): pp.670-1.

⁶⁰ Cato *De Agri Cultura* 126, translated by W. Hooper and H. Ash (rev.). Cato also refers to remedies for worms (*taenias...et lumbricos*) in 127.1.

Mala Punica usually refers to pomegranates, but the addition of the adjective *acerba* may indicate a unique variety of the plant or perhaps a different fruit altogether.⁶¹ However, it is likely that Cato was referring to one of the varieties of pomegranate known for its acidic flavor.⁶² Assuming that Cato was indeed speaking of the pomegranate, or *Punica granatum*, the prescription is considerably straightforward. The strong wine provided a medium in which chemicals soluble in alcohol could freely enter solution and thereby be made available as concentrated drugs.⁶³ The bark of *Punica granatum* contains tannins along with a number of alkaloids, a particularly potent family of biologically active chemicals found in plants and some animals.⁶⁴ Depending on the method whereby the plant was prepared, it is likely that its chemical constituents made a highly effective vermifuge.⁶⁵ Cato's purgative probably worked by severely irritating the lining of the intestines. Serious irritation of the intestines can cause a sloughing of the intestinal mucosal layer. This shedding of the most external layer of the small and large intestines would have aided in the evacuation of the parasite; this method was undoubtedly a 'shotgun' approach but it may have been highly successful. The tannins and alkaloids of

⁶¹ The identification of plants in classical Latin is sometimes straightforward and sometimes pure guesswork. An adjective like *acerba* in Cato 126 can designate an entirely different plant from that which is indicated by the noun it is modifying. The only time we can be sure that a Latin botanical name corresponds with a specific plant, fruit or flower is when it has already been described physically in another text. Cato also refers to a pomegranate in 127.1 but does not choose to use an adjective; it is simply *malum punicum*.

⁶² M. Grieve, *A Modern Herbal* (New York, 1981): vol. II. p.649, three varieties of pomegranate (*Punica granatum*) were known on the basis of their relative acidity. One was very sour, another moderately sweet and another very sweet.

⁶³ The Romans used a variety of liquids as media for drug preparation and administration. Among these were oil, wax, vinegar and wine.

⁶⁴ Grieve (1981): vol. II. p.649.

⁶⁵ A vermifuge is a chemical that kills intestinal worms. On tannic acid and alkaloids see V. Tyler et al. (eds.), *Pharmacognosy* (Philadelphia, 1981): pp.77-81; 195-261.

the pomegranate may also have acted directly upon the intestinal worms themselves, but in either case, it is clear that Cato was aware of a specific treatment for what appears to have been a common medical complaint of rural Italy.

Urinary problems are also common in Cato's work on farming. Throughout the *De Agri cultura* he consistently refers to generalized problems with urination much in the same manner as he dwells on general gut complaints. In one instance he mentions a specific condition of the urinary tract known as *stranguria*, but he assumes that his reader is already familiar with the disease and does not add any details about its progression.⁶⁶ In several other places he gives brief indications of the specific signs of those suffering from this problem, including difficult urination (*si lotium difficilius transibit*), and a painful urine stream resembling drops of rain (*lotium...substillum est*).⁶⁷ From this description it remains difficult to say with any certainty whether Cato was speaking of bladder infections, kidney disease or prostate dysfunction, but, once again, his remedies are delightfully simple:

"Vinum cocinnare, si lotium difficilius transibit. Capreidam vel iunipirum contundito in pila, libram indito, in duobus congiis vini veteris in vase aheneo vel in plumbeo deferrefactio. Ubi refrixerit, in lagonam indito. Id mane ieiunus sumito cyatum; proderit."

"To blend a wine as a remedy for retention of urine (*literally, if the urine passes with difficulty*): Macerate capreida (an unknown plant) or juniper, add a pound of it, and boil in 2 congi of old wine in a copper or lead vessel. After it cools,

⁶⁶ Cato *De Agri Cultura* 127.

⁶⁷ Cato *De Agri Cultura* 122; 156.7. The instance of difficult urination in 156 seems the most descriptive of Cato's references to bladder and kidney problems: "Nunc de illis, quibus aegre lotium it quibusque substillum est." "Now for this group of sufferers, namely those whose urine passes painfully and for whom the urine is like drops of rain," my translation.

pour into a bottle. Take a cyathus in the morning before eating; it will prove beneficial.”⁶⁸

“Nunc de illis, quibus aegre lotium it quibusque substillum est. Sumito brassicam, coicito in aquam ferventem, coquito paulisper, uti subcruda siet. Postea aquam defundito non omnem. Eo addito oleum bene et salem et cumini paululum, infervefacito paulisper. Postea inde iusculum frigidum sorbere et ipsam brassicam esse, uti quam primum excoquatur. Cotidie id facito.”

“Now for those who pass urine with difficulty and suffer from strangury: take cabbage, place it in hot water and boil until it is half-done; pour off most of the water, add a quantity of oil, salt, and a bit of cumin, and boil for a short time. After that drink the broth of this and eat the cabbage itself, that it may be absorbed quickly. Repeat this treatment daily.”⁶⁹

The ingredients, with the exception of *capreida*, must have been common to the Republican farm, for they appear repeatedly in medical and non-medical literature.⁷⁰

Juniper, or *Juniperus communis*, is a coniferous shrub with thin pointed leaves that bears blue-grey berries which blacken as they ripen.⁷¹ The volatile oil derived from juniper has been studied for its diuretic properties and was doubtlessly used by the Romans for the same reason.⁷² Diuretics act to increase urine production. In cases of difficult urination, a diuretic such as juniper oil may have acted at a number of different anatomical locations, such as the bladder or prostate, where it could have had numerous

⁶⁸ Cato *De Agri Cultura* 122, translated by W. Hooper and H. Ash (rev.). *Congii* and *cyathi* are Roman units of liquid measurements. 1 *cyathus* = 45.5 ml; 1 *congius* is 1/8th of an *amphora*.

⁶⁹ Cato *De Agri Cultura* 156.7, translated by W. Hooper and revised by H. Ash.

⁷⁰ *Capreida* is unidentifiable. I have not found it in any text other than Cato's *De Agri Cultura*.

⁷¹ For a description of juniper and its uses in medicine see: D. Bown, *Herbal: The Essential Guide to Herbs for Living* (New York, 2001): pp.150-2, and Grieve (1981): pp.452-3.

⁷² The volatile oil contains alpha-pinene, beta-pinene, myrcene, limonene and alpha-terpineol. Another species of juniper produces a biologically active tar known for its antieczematic and anthelmintic qualities. Tyler (1981): pp.115; 133.

physiological effects. Cato's cabbage potentially possessed diuretic qualities that were useful in the treatment of urinary disorders. The cabbage prescription included a number of readily available ingredients, and was probably a standard drug in early Rome.

Cato also addresses the treatment of wounds (*vulnera*), sores (*ulcera*) and growths (*tumores*).⁷³ These include inflamed sores, suppurating wounds and abnormal or cancerous growths. He suggests the use of a poultice composed of macerated cabbage to treat all such skin problems, and recommends that the affected area should be washed before the application. Agricultural labor, especially the basic work of planting and harvesting, undoubtedly caused many injuries to the skin of the slaves responsible for the most demanding work. Cuts, bruises, contusions, blisters, sores and skin infections would have been quite common in such an environment, and Cato's cabbage-poultice was probably another commonly used curative. However, it is important that Cato includes abnormal swellings (*tumores*) and malignant tumors (*canceres*) in his list of skin afflictions. Roman field slaves were exposed for extended periods of time to direct sunlight, and this prolonged exposure to ultraviolet radiation would have predisposed them to a greater likelihood of developing malignant skin cancers. There is no reliable evidence about the prevalence of basal cell carcinomas, squamous cell carcinomas, or melanoma in antiquity, but Cato's discussion of the topic would seem to indicate that this type of disease was commonly encountered in rural slave populations. It is impossible to predict whether Cato's cabbage possesses cancer fighting properties, but it is fair to say

⁷³ Cato *De Agri Cultura* 157.3.

that at least one Roman believed in its ability to treat such growths. In fact, Cato believed that cabbage could even be used to treat breast cancer.⁷⁴

The last category of common ailments commonly encountered in the Italian countryside is skeletal in nature. Human bones and joints are certainly vulnerable to the rigorous demands of farming life and probably comprised the most potentially debilitating of injuries encountered in the fields. As mentioned above, the dangerous risk of permanent debility due to fracture or dislocation demanded that bones be set with speed and accuracy. Cato's particular remedy for mending fractures and replacing dislocations is so filled with contextual solutions that it is quite difficult to understand what is actually taking place.⁷⁵ Among other problems, Varro mentions the far less serious problem of gout, a seemingly universal affliction of the ancient world, while Cato provides a remedy for pain in the hips, which is again a simple concoction of juniper bark boiled in wine.⁷⁶ Bone and joint problems were certainly among the most common medical problems encountered on the farm, and like intestinal worms, difficulty urinating and skin cancer, they were certainly on the overseers list of anticipated health issues. As a good *dominus*, Cato made an effort to provide his *vilicus* with simple remedies for each of these commonly encountered problems.

⁷⁴ Cato *De Agri Cultura* 157.4: "Et siquid in mammis ulceris natum et carcinoma, brassicam tritam opponito, sanum faciet." "An ulcer on the breast and a cancer can be healed by the application of macerated cabbage," translated by Hooper and Ash.

⁷⁵ Cato *De Agri Cultura* 160. Also, see aforementioned discussion of the myth of Roman medicine as folklore.

⁷⁶ Varro, *De Re Rustica* 1.2.26-28, and Cato *De Agri Cultura* 123.

The Treatment of Animals

Farm animals in early Rome, like humans, were subject to a number of common diseases and 'occupational' injuries. The nature of herd health in Rome focused on the prevention and cure of communal diseases and physical trauma. The most prevalent medical conditions of livestock included hoof-rot, skin diseases and digestive disorders. Once again, the issue of concern for overseers and herdsman was the economic productivity of these animals. Not only did sick animals produce goods of inferior quality, but illnesses prevented them from being sold in Roman markets. Farmers in need of oxen for plowing and butchers looking to buy livestock were scrupulous in their purchase of farm-raised animals. The sale of animals bound the vendor to the buyer by means of a formulaic guarantee of good health stated as a question proposed by the buyer. For example, Varro relates that someone interested in obtaining bulls may ask, "Do you guarantee that the said bullocks are quite sound (*sanus*) and of a sound herd, and that I am protected from suits of damage?"⁷⁷ That is, the vendor could not sell any sick animals or livestock from an unhealthy herd that might become sick at a later time. In order to prevent the loss accrued by the inability to sell one's livestock, the physical maintenance of the herd became a significant issue for Roman farmers. Health and wealth were closely conjoined in the world of Roman agriculture, and as a result, the skilled medical-artisan assumed the role of veterinarian when the resources of the herdsman were exhausted.

Cato and Varro discuss a number of pharmaceutical remedies that would have been used by herdsman to treat the most common ailments of their animals. Both Cato

⁷⁷ Varro *De Re Rustica* 2.5.11, translated by W. Hooper and H. Ash (rev.).

and Varro mention scabies (*scabies* and *scabra*), a skin disease of herd animals caused by exposure to itch mites.⁷⁸ These pesky arthropods burrow into the epidermis where they deposit their eggs. Localized lesions arise at the affected sites, which cause pruritus and subsequent bacterial infection. The disease derives its name from the incessant itching of its victims and the roughened appearance of the skin. Cato thought that the disease was caused by humidity and improper feeding, and he believed he could prevent it with a bath of simple drugs.⁷⁹ Like many of his prescriptions, he recommends the use of *amurca*, the aqueous component of strained olives, which had a multitude of medical and non-medical uses in antiquity. He recommends combining *amurca* with wine dregs and the juice of boiled lupines, and then smearing it on the skin of freshly-sheared animals. After this, they were bathed in the sea, or if this was not practical, in salt or brine solutions.⁸⁰ It is unclear whether the biologically active chemicals derived from lupines and *amurca* are particularly helpful in the treatment of scabies, but Cato's prophylactic prescription would certainly assist in removing any mites or unwanted parasites in the animal's coat and on the surface of its skin. Scabies and its remedy *amurca* were also recognized by Virgil, who immortalized the disease's etiology and treatment in his *Georgics*:

**"Turpis ovis temptat scabies, ubi frigidus imber
altius ad vivum persedit et horrida cano
bruma gelo, vel cum tonsis inlotus adhaesit
sudor, et hirsute secuerunt corpora vepres.
Dulcibus idcirco fluviis pecus omne magistri
perfundunt, udisque aries in gurgite villis
mersatur, missusque secundo defluit amni;**

⁷⁸ Murray et al. (1998): pp.685-6.

⁷⁹ Cato *De Agri Cultura* 5.7. Varro also believed that moisture was the cause of the disease: Varro *De Re Rustica* 2.2.8.

⁸⁰ Cato *De Agri Cultura* 96.

**Aut, tonsum tristi contingent corpus amurca
et spumas miscent argenti vivaque sulphura
Idaesque pices et pinguis unguine ceras
scillamque elleborosque gravis nigrumque bitumen.”**

**“Foul scab (*scabies*) attacks sheep, when chilly rain and winter,
bristling with hoar frost, have sunk deep into the quick,
or when the sweat, unwashed, clings to the shorn flock,
and prickly briars tear the flesh.
Therefore the keepers bathe the whole flock in fresh streams;
the ram is plunged in the pool with his dripping fleece,
and let loose to float down the current.
Or, after shearing, they smear the body with bitter oil-lees (*amurca*),
blending silver-scum and native sulphur with pitch from Ida
and richly oiled wax, squill, strong hellebore, and black bitumen.”**⁸¹

Virgil, like Cato, presented weather conditions as the ultimate cause of scabies, and mentioned the use of a concoction that included oil-lees or *amurca*. However, unlike his agrarian predecessor, he added a number of drugs, one of which seems to be out of place in a dermal prescription. Hellebore was generally used in antiquity as a purgative for the bowels, and was not typically applied to the skin. In contrast, silver scum (lead monoxide), sulfur, pitch and bitumen were common topical drugs, and may have been used in treating skin disorders because of their antibacterial properties.

A number of additional medical issues concerning the care of farm animals appear in Cato and Varro. These include castration,⁸² hoof maintenance,⁸³ general prophylaxis⁸⁴ and wound treatment,⁸⁵ but veterinary problems were not limited to herd animals alone.

⁸¹ Virgil *Georgics* 3.441-51, translated by H. R. Fairclough.

⁸² Varro *De Re Rustica* 2.9.14; 3.9.4.

⁸³ Cato *De Agri Cultura* 5.8; 72.

⁸⁴ Ibid. 70.

⁸⁵ Varro *De Re Rustica* 2.11.8.

Like sheep, cows and pigs, dogs represented an investment of time and money for the *dominus* and required their own particular specialized healthcare. Like other farm animals, dogs were purchased only after a guarantee of their health was made by the vendor.⁸⁶ They were an important element of the Roman agrarian lifestyle because they accompanied the herdsmen to their summer and winter pastures where they protected the sheep and goats from wolves.⁸⁷ Varro spoke about dogs almost as much as he did about cattle and horses. He was most concerned with topics such as proper rearing, training, diet, breeding and general maintenance.⁸⁸ Varro's affection for dogs is as obvious as his respect for their value. The Romans made an ointment of crushed filberts and rubbed it on the ears and toes of their dogs to keep flies and other insects from biting them and causing skin problems.⁸⁹ Cato's remedy for scabies was also used to prevent ticks, and was probably a common element of canine healthcare.⁹⁰ Shepherds were probably responsible for the health of their own dogs, but as in the case of sheep and cattle, it is likely that medical-artisans were consulted when the shepherd was unsure of the appropriate form of care.

Apiaries were an extremely profitable component of Roman farming, but bees were subject to illness just as any other living part of the estate. Varro tells us the story of the Veianius brothers who turned their poverty into fortune by using all of their

⁸⁶ Ibid 2.9.7.

⁸⁷ Ibid 2.9.1.

⁸⁸ Ibid 2.9.1-16.

⁸⁹ Ibid 2.9.14.

⁹⁰ Cato *De Agri Cultura* 96.

inherited land for the production of honey.⁹¹ Varro was obviously impressed by the money that could be made in the cultivation of bees, and therefore treats the subject of raising and maintaining this insect as he does the other farm animals. That is, health was as much an issue of concern in maintaining an apiary as it was in keeping flocks and herds. In one particular section of his work, Varro even describes the symptoms of ailing bees:

“Sanitatis signa, si sunt frequentes in examine et si nitidae et si opus quod faciunt est aequibile ac leve. Minus valentium signa, si sunt pilosae et horridae, ut pulverulenta, nisi opifici eas urget tempus; tum enim propter laborem asperantur ac marcescunt.”

“The signs of health are their being thick in the swarm, sleek, and building uniformly smooth comb. When they are not so well, the signs are that they are hairy and shaggy, as if dusted over—unless it is the working season which is pressing them; for at this time, because of the work, they get rough and thin.”⁹²

It is difficult for a modern audience—or anybody not involved in apiculture—to appreciate a concern for insect health, but again, the economic value of bees and their honey drove the practical desire to ensure their well-being. It is unknown whether the *medicus* was consulted in the case of insect health, but it is clear that bees were treated just like any other valuable living commodity. Virgil captured the concern for the health of the hive most appropriately in anthropomorphic portrayal of bee illness and treatment:

**“Si vero, quoniam casus apibus quoque nostros
vita tulit, tristi languebunt corpora morbo—
quod iam non dubiis poteris cognoscere signis:
continuo est aegris alius color; horrida voltum
deformat macies; tum corpora luce carentum**

⁹¹ Varro *De Re Rustica* 3.16.10-11.

⁹² Ibid 3.16.20, translated by W. Hooper and H. Ash (rev.).

exportant tectis et tristia funera ducunt...
 hic iam galbaneos suadebo incendere odores
 mellaque harundineis inferre canalibus, ultro
 hortantem et fessas ad pabula nota vocantem.
 Proderit et tunsum gallae admiscere saporem
 arentisque rosas, aut igni pinguia multo
 defruta vel psithia passos de vite racemos,
 Cecropiumque thymum et grave olentia centaurea.”

“But, since to bees as well hath life brought the ills of man,
 if their bodies droop with a grievous disease—
 and this you can at once discern by no uncertain signs:
 straightway, as they sicken, their colour changes,
 an unsightly leanness mars their looks;
 anon forth from their doors they bear the bodies
 of those bereft of life, and lead the mournful funeral train...
 Then would I have you burn forthwith fragrant gum,
 and give them honey through pipes of reed, freely heartening them,
 and calling the weary to their familiar food. It will be well, too,
 to blend the flavour of pounded galls, and dried rose-leaves,
 or must made rich over a strong fire, or dried clusters
 from the Psithian vine, with Attic thyme and strong-smelling centaury.”⁹³

If bees were indeed treated with all of these drugs, or ones like them, it is fair to say that apiculture received the same medical attention as any other form of animal husbandry.

One can only guess about the efficacy of bee-drugs, but because the honey-making industry in Rome was quite lucrative, it is likely that some of the cures may have actually worked.

Conclusion: Early Roman Medicine without Pliny's Template

If we base our understanding of early Roman medicine on a strict analysis of our ancient sources alone, without the aid of Pliny's assertions, without modern scientific beliefs, and without Darwinian expectations of social evolution, the confusing history of

⁹³ Virgil *Georgics* 4.251-6; 264-9, translated by H. R. Fairclough.

doctors, diseases and drugs in Republican Rome appears much clearer than previously pictured. The *medicus*—a member of Roman society who practiced medicine as a profession—was not the head of an estate, but a trained craftsman; he was an artisan, a member of the same class of tradesmen that included smiths and fullers. Like each of them, the practice of his art depended on an understanding of its material media. That is, the Roman medical-artisan was contracted to provide an understanding of drugs that surpassed the simple cures found in the notebooks of estate masters, farm managers, and responsible herdsman. The *medicus*, a trained expert in pharmacy, was used as a resource when farmers were presented with diseases beyond their limited scope of experience. His trade protected the living investments of the large estate owner, and was therefore a valuable resource in the agricultural economy:

“Quarta pars est de sanitate, res multiplex ac necessaria, quod morbosum pecus est vitiosum, et quoniam non valet, saepe magna addiuntur calamitate. Cuius scientiae genera duo, ut in homine, unum ad quae adhiberi medici, alterum quae ipse etiam pastor diligens mederi possit.”

“The fourth division (of herd management) is that of health—a complicated but extremely important matter, inasmuch as a sickly herd is a losing investment, and men frequently come to grief because it (the herd) is not strong. There are two divisions of such knowledge, as there are in the treatment of human beings: in the one case the physician should be called in, while in the other even an attentive herdsman is competent to give the treatment.”⁹⁴

The physician was summoned to treat animals and humans only when their proper care was beyond the understanding of those responsible for their well-being. The medical-artisan hired out his services to his neighbors and received payment for the sake of his expert knowledge. Because the medical-artisan was considered to be of the same station

⁹⁴ Varro *De Re Rustica* 2.1.21, translated by W. Hooper and H. Ash (rev.).

as smiths and fullers, it is likely that he was held to similar contractual standards. Failing to provide relief to a patient may have been considered a dereliction of contractual agreement, and probably resulted in a penalty consistent with that received by other hired artisans. Doctor's guilds do not appear in any of our surviving texts, but it is likely that some form of pharmaceutical training existed for the medical-artisan just as it did for other craftsmen. The early Roman physician did indeed exist; the *medicus* was a skilled tradesman, who directly assisted the *dominus* and his farm manager, but was entirely independent of his family.

Without exception, the practice of medicine, as it appears in the farming manuals of Cato and Varro, was strictly confined to the treatment of the sick by means of drugs alone. Surgical procedures are entirely absent from these works. The only extra-pharmaceutical form of treatment is the manipulation of broken bones and dislocated joints. Early Roman medicine was nothing more or less than simple pharmacy; drugs were used by the unskilled farmer only insofar as the diseases he encountered fell within his limited experience. When his notebooks failed to aid him, the medical-artisan would have been summoned, and the patient would therefore be treated by a professional. Overseers and herdsman, those responsible for treating the simplest medical problems of slaves and cattle, were instructed to avoid dipping into magic, astrology and divination in order to assist in the performance of their daily duties, whether they were of a medical nature or not. These men were the foremost guardians of the master's wealth, and as such, they were expected to achieve the best results by means of the most practical methods. Cato's *vilicus* is the perfect example of the efficient overseer, who was frugal but at the same time practical, stern but never malicious, shrewd but always trustworthy.

His duty was the maintenance of the farm, including the health and general well-being of its inhabitants, whether they walked on two or four feet.⁹⁵

⁹⁵ Bees are insects and therefore have six legs. They prefer to fly and rarely walk on their legs in public (outside of the hive), but they were also under the protection of the *vilicus*.

Chapter #2: Urban Pharmacy

Introduction

Roman medicine practiced in the Italian countryside on small farms and large estates was essentially pharmaceutical; drugs met the demands of the highly practical overseers, herdsman and landowners, who desired above all to increase their productivity and profit. Sickness in the herd and among slave populations was a harbinger of economic loss and decreased yields of commercial goods, and farmers maximized their earning potential by employing drugs and drug specialists to combat injury and disease. The rural *medicus* was a medical craftsman whose detailed knowledge of botanicals and other pharmaceuticals qualified him to strike contractual agreements with his neighbors, concerning the health of his slaves and herds. However, the prevailing environmental conditions of the city were strikingly different from those found on the farm, and this fashioned the development of urban pharmacy.

The urban *medicus* was a product of his surroundings, and, like rural doctors, relied primarily on the use of drugs; but his vocational enemies were highly contagious epidemic and endemic diseases rather than physical injuries, trauma related infections, and the illnesses of herd animals. The crowded conditions of the city and poor sanitation of Rome favored the recurrent outbreak of serious diseases throughout the Republic. The urban population, rich and poor, was regularly culled by an onslaught of pathogens typically encountered in regions characterized by dense gatherings of people and poor hygiene. Whether the inhabitants of Rome fell victim to the recurrent plagues that ravaged the city or contracted diseases common to the landscape of crowded urban life, it

is clear that the fear of disease permanently scarred the collective psyche of the populace and made its presence known in the works of poets and playwrights alike. Republican literature of all genres is replete with references to disease, drugs and doctors. From such evidence, we can reconstruct the world of the urban *medicus* and attempt to distinguish his particular duties from those of the rural medical-artisan. We can also examine some of the specific curatives used in the Republic, with hopes of determining their physiological effects on the body and their potential efficacy. The key to understanding the life of the city doctor rests on an appreciation of the profound influence of urban diseases on the community of Rome. The conditions of the city helped to shape the urban *medicus*, just as the rural environment determined the role of the country doctor.

The Unhealthy Urban Environment

In 463 B.C. Rome and its surrounding countryside suffered a devastating plague that brought disastrous political and social turmoil in its wake. The disease descended on the city at particularly inopportune time, when its allies were desperately seeking military assistance against a large invading army. When Rome found itself unable to levy an adequate number of soldiers, the city's enemies freely pillaged the rural districts surrounding it without meeting any form of resistance. Livy records the extremely difficult circumstances in which the population found itself at this time:

“Grave tempus et forte annus pestilens erat urbi agrisque nec hominibus magis quam pecori; et auxere vim morbi terrore populationis pecoribus agrestibusque in urbem acceptis. Ea conluvio mixtorum omnis generis animantium et odore insolito urbanos et agrestem confertum in arta tecta aestu ac vigilis angebat, ministeriaque in vicem ac contagio ipsa volgabant morbos...Mortuus Aebutius erat Romanus consul; collega eius Servilius exigua in spe trahebat animam; adfecti plerique principium, partum maior pars, militaris fere aetas omnis...”

“It was an unhealthy season and in both town and country there was a great deal of sickness. Cattle suffered as much as men, and the incidence of disease was increased by overcrowding, as farmers together with their livestock had been taken into the city for fear of raids. The smell of this motley collection of animals and men was distressing to the city folk, who were not accustomed to it; the farmers and yokels, packed as they were into inadequate quarters, suffered no less from the heat and lack of sleep, while attendance upon the sick, or mere contact of any kind, continually spread the infection...In the city, the consul Aebutius had died; his colleague Servilius was in a lingering state, almost despaired of. Most of the leading men, the majority of the Senate, almost everyone of military age were down with the disease...”¹

With one consul dead and the other sick, the Romans were forced to allow the enemy to plunder the countryside.

This particular outbreak was by no means the only account of plague in Rome. In his *Ab Urbe Condita*, Livy speaks of approximately fifty epidemics between the mid fifth and early second centuries B.C. His account of the early history of Rome provides a strikingly gloomy picture of urban health, and supplies us with an overview of the cyclical occurrence of epidemics and hyper-endemic diseases, each of which dramatically affected the daily lives of average citizens. Livy’s ‘bird’s eye’ view of disease in Republican Rome reveals some interesting epidemiological trends. *Pestilentiae*, the Latin word for “plagues” or “epidemic diseases,” intermittently emerge as common disastrous events in the life of the city dweller throughout Livy’s history. When looking at the occurrence of citywide disease in Rome, one cannot help but notice that the inhabitants of Rome suffered from serious epidemics on a regular basis; roughly once

¹ Livy *Ab Urbe Condita* 3.6.2-3, 8. Translated by A. De Selincourt.

every ten years some form of widespread illness assaulted the city.² Accompanying this periodic outbreak of disease, farmers and government officials alike inevitably neglected their respective duties and thereby unintentionally created additional problems such as famine and civic turmoil. Once disorder and confusion gained a foothold in the city, the public's concern for its personal safety produced an environment characterized by superstition and fear.³ The unpredictable nature of disease in the city nurtured a growing fear of death; no Roman was safe from the ravages of plague.

Livy tells us that all segments of society were affected by these recurrent epidemics. Young and old, aristocrat and commoner, all were subject to the effects of epidemic disease. To add insult to injury, those who attempted to alleviate the suffering of others were especially susceptible to the illness.⁴ Oftentimes, the mortality rate was so high that people neglected proper burial procedures. The horrifying sights and smells of rotting corpses undoubtedly reinforced the fears of the masses while promoting the very same unsanitary conditions that perpetuated the plague. In addition, those who managed to recover often suffered from chronic health problems.⁵ Although this cycle of recurrent disease claimed countless lives, many of those who suffered the symptoms of plague eventually developed immunity.⁶ City dwellers doubtlessly recovered from the anxiety

² Livy shows considerable concern for plagues and their outbreaks within Rome and the surrounding countryside. His writings are replete with the word for plague (*pestilentia*): *Ab Urbe Condita* 1.31.4; 2.34.5; 2.35.8; 3.6.5; 3.13.1; 3.32.2; 4.20.9; 4.21.2; 4.25.2; 4.25.4; 4.52.2; 4.52.4; 5.14.3; 5.31.5; 5.48.1; 6.20.15; 6.20.16; 6.21.5; 7.1.8; 7.2.1; 7.27.1; 8.17.4; 8.18.2; 8.22.7; 9.28.6; 10.31.7; 10.47.5; 25.26.5; 27.23.5; 27.23.6; 37.23.2; 38.44.7; 40.19.5; 40.36.14; 40.42.5; 41.5.11; 41.6.6; 41.21.5; 41.21.7; 41.21.9.

³ On fear accompanying plague see: Livy *Ab Urbe Condita* 4.21.6, 7.1.8.

⁴ Ibid. 25.26.7.

⁵ Ibid. 27.23.6.

⁶ Ibid. 25.26.7.

generated by such harsh circumstances, and people probably returned to their daily habits once the epidemic subsided, but there must have been a lingering understanding in the community's collective conscience that the next disastrous plague was just around the corner. For roughly three hundred years, this pattern of explosive outbreaks of plagues in Rome, followed by their sudden evanescence, remains dismally consistent. Rome was clearly subjected to a variety of specific pathogens suited to the crowded urban environment, which regularly surfaced and devastated its population. For the average citizen, persistent outbreaks of disease were probably as common as elections and war, and would not have taken the urban population by surprise.

Republican prose and poetry both display a keen awareness of such widespread epidemics and common endemic infections, and carry the imprint of their physical and emotional effects on the population. For example, Accius, a second century playwright, relates the devastation of tuberculosis, a disease known in antiquity for its cruel physical effects: "My children are snatched away by a swift death, which brings a wasting of the body."⁷ The harsh reality of the crowded city as a facilitator of disease transmission left its mark on this poet and others like him. It is particularly interesting that Accius relates the suffering of an innocent child in his discussion of tuberculosis.⁸ This seems to emphasize the point that all segments of Roman society were subject to the difficult circumstances of widespread disease in the city. The celebrated poet Ennius also uses the imagery of disease and suffering as one of his many creative literary tools; several of his

⁷ Accius, *Fragmenta* 410, my translation.

⁸ In the aforementioned passage Accius uses the Latin *tabificabilis*, which is a 'wasting' or 'decaying' disease. This is most likely a reference to tuberculosis, which is marked by severe physical wasting.

fragments employ plague and war as anonymous killers,⁹ while others speak of common ailments such as gout and delirium, which may not have been immediately fatal but certainly caused great suffering.¹⁰ Another Roman, Lucilius, an outspoken poet of the second century, mentions a number of additional diseases, including such unpleasant ailments as warts, gangrene and lice. While anyone in antiquity, regardless of whether they lived in the city or countryside, could easily contract these infections, a city dweller was much more susceptible to them as a result of the city's crowded conditions and close living-quarters. Lucilius mentions several highly contagious diseases including lung infections, jaundice and swellings of the pharynx that are all well adapted to survival in the urban environment.¹¹ Reading Republican prose and poetry, it becomes clear that the city of Rome itself provided a unique environment that cultivated the spread of infectious disease. Roman scholars, poets and their audiences betray an acute awareness of this dilemma.

Sources for Urban Disease and Pharmacy

The dearth of medical writers from the Republic casts a dark shadow on the history of urban medicine and pharmacy. Most modern histories of Roman medicine avoid a detailed discussion of the Republic, and frequently prefer to consider the much better documented period of the Roman Empire.¹² Modern authorities have adopted the

⁹ Ennius *Annals* 476; *Tragedies* 169-181.

¹⁰ Ennius *Tragedies* 37; *Satires* 21.

¹¹ Lucilius Fragments: Lung problems, III. 133-134.; Jaundice, I. 37; Quinsy, XXX. 1005.

¹² In a typical examination of specific drugs from antiquity scholars discuss the Greek or Hellenistic uses of these drugs and then move immediately to Roman Imperial medicine. For example: J. Scarborough, "On Medications for Burns in Classical Antiquity," *Clinics in Plastic Surgery* Vol. 10. No. 4 (1983): pp.603-10.

premise that urban medicine from this time was overly primitive and therefore ineffective, and like its rural counterpart is looked upon as a product of magic, religion and superstition.¹³ In fact, in histories of Roman medicine, urban and rural medical practices are never clearly distinguished from one another; the two are lumped together without any regard for the significant differences in their respective practices. Illnesses and injuries typically encountered in the city and countryside are fundamentally distinct. For example, a doctor practicing in the city of Rome may have been more likely to run across patients with certain communicable diseases like tuberculosis and herpes, while the overseer (*vilicus*) was probably exposed to a greater number of problems related to physical trauma and cross-species infections, like tetanus and scabies respectively. In order to treat diseases specific to their own patients, urban and rural physicians would have employed different drugs and varying remedies. That is, city and country doctors would have practiced distinctly unique forms of medicine. However, these distinctions are typically overlooked, and much of Roman medicine has been lumped into a single category. This inexact examination of ancient medicine has led us to the conclusion that the systematic organization and theoretical foundations of Hippocratic and Hellenistic Greek medicine created a standard of excellence never achieved in Rome. When comparing Roman and Greek medicine of the Republic, one prominent author clearly communicates his own prejudices as well as our modern predilection for cross-cultural comparisons of Greek and Roman practices: "Native Romans could not possibly compete

Here, the author examines the use of burn medications in Greece and then Imperial Rome. This is usually the case because historians of medicine restrict themselves to medical texts and do not typically utilize other genres.

¹³ Scarborough *Roman Medicine* (Ithaca, 1969): pp.15-25.

with these people (Greek physicians)—who had nine ways to reset a shoulder—when the best the Romans could do to the same end was to bind on two pieces of a green reed and sing over them the gibberish of Cato the Censor.”¹⁴

The influence of Greeks and other foreigners is a common theme in any discussion of urban medicine just as it is in rural medicine. Because there are no surviving Republican medical authorities in Latin, it is generally accepted that the Romans simply adopted the medicine of other cultures and then mixed these foreign practices with their own brand of superstition and folklore, in order to meet the needs of the urban physician.¹⁵ Add to this the philosophical sophistication of the Greeks and the mystery of medicine in the Republican city is solved:

“...as we have glanced at the scene and sources of Medicine in Rome, we discover a broad and deep but far from pellucid stream issuing from and compounded of the folk-lore of the small dark old Italian people we have taken as aboriginal, of the oriental Etruscans, and of the invading northern tribes whom we may indicate roughly as Thessalian...Into that main stream of more or less universal primitive folk-medicine were now poured three fresh tributaries, all of them the expressions of far higher culture:...the Greek clinical, or Hippocratean school...(the school) of Italo-Greek origin...the school of that great physician Diocles of Carystus.”¹⁶

¹⁴ G. Majno *The Healing Hand: Man and Wound in the Ancient World* (Cambridge, 1975): p.341.

¹⁵ Many scholars believe Roman physicians retained an ‘earthy’ knowledge of drugs passed from generation to generation, whether they practiced in the city or surrounding countryside. For example: “The best physicians were schooled in pharmaceutical lore...” J. Scarborough, “Drugs and Medicines in the Roman World,” *Expedition*. Vol. 38. No. 2. (1996): pp.38-51. ‘Pharmaceutical lore’ gives the impression of an unorganized body of beliefs concerning the use of botanicals for the sake of medicine, magic and superstitious rituals. As we have seen in our examination of rural pharmacy, large estate owners demanded concrete results when it came to their slaves and animals. Pharmacy as amorphous ‘folklore’ does not seem to mesh with the model of Varro’s medical artisan, who used his expertise to advise herdsmen and overseers. It is likely that an understanding of pharmacy as ‘medical fairytale’ also falls short of accurately representing the urban physician.

¹⁶ C. Allbutt *Greek Medicine in Rome* (London, 1975): pp.18-19.

While it is true that Roman cultural practices were probably influenced by Etruscan and Greek neighbors, Roman medicine was not simply an amalgam of different foreign influences. For example, Greek physicians like Archagathus and Asclepiades probably figure prominently in the history of urban medicine because they may have been an oddity in a society that practiced a unique version of rural medicine, cleverly adapted to the needs of city-life.

Doctors who practiced in the city had no need for unified medical theories, nor did they require membership in any sort of brotherhood of physicians. Indeed, the superior wisdom of the Greeks, and the arrival of Greek physicians in Rome tend to obscure the influence of native Roman medicine; the influence of prominent Greek physicians readily finds its way into our later medical and non-medical texts, while native Roman medical practices, as they evolved from rural origins, seem to have avoided any significant interest from our surviving sources.¹⁷ Roman medical practices were not particularly noteworthy because they were already an integral part of the fabric of Roman society and Republican traditions; Greek medicine was worth mentioning because it was so different from native Italic practices.

Native Roman medical practices and their development within crowded urban environments are bits of history that must be carefully reconstructed from an examination of our non-medical Republican literary sources. Due to the absence of Latin medical authorities from this period, the principles of authentic urban medicine must be derived from the technical nuances found in these explicitly non-medical works. Many well-known authors expressed strong views about doctors and drugs. Their ideas and biases

¹⁷ The most obvious example of this is Celsus' *De Medicina*, which is concerned with establishing the prominent role of Greek medicine. For example, the introduction to the *De Medicina* is entirely a history of medicine that focuses prominently on the contribution of Greek doctors.

can help to recreate an image of medicine in the city and the particular practices of urban doctors. Although the works of poets and historians do not represent the musings and speculations of actual physicians, they do reflect the common views and experiences of Roman citizens with diseases and remedies. These non-medical authors paint a more detailed picture of urban medicine and pharmacy, as the utilitarian form of treatment on the farm, gradually evolved to treat the dominant health problems of the urban environment. These texts reveal many details about specific diseases of the city, and consequently the drugs used to treat them. Any examination of drugs in the city of Rome must begin with an understanding of common urban diseases and epidemics. Learning what they encountered in routine daily life will enable us to understand the pharmaceutical therapy used to treat their illnesses.

The surviving sources for the use of drugs in the Republican period, with the exception of the agricultural works of Cato and Varro, are also of a distinctly non-medical nature. Specifically pharmaceutical works first surface in the reigns of those emperors immediately following Augustus. However, those pharmaceutical texts dating from the initial stages of the Roman Imperial period are not simply *de novo* products of their authors, but instead the synthesis of hundreds of years of traditional practices and drug knowledge. The works of Celsus, Scribonius Largus and Pliny the elder, therefore, represent the distillation of generations of drug use, and when correlated with earlier literature, are an excellent source of specific drugs used during the period of the Republic. That is, the nature of herbal knowledge itself requires that each generation build upon the foundations of preceding generations, while remedies are preserved and improved upon across a great span of time. The best concrete example of this can be

found in the use of specific compound drug mixtures bearing the name of their inventors—men who lived and practiced in previous generations. Scribonius' prescription for the "wound healing salve" of Tryphon the surgeon contains a specific herbal tradition passed down from a specific "progenitor," Tryphon, who based the creation of his compound remedy on the work of his predecessors. Pharmacy in Rome, as in any society rooted firmly in folklore traditions, was the aggregation of many years of traditional beliefs. Contrary to the scholarly assumption of a total lack of earlier sources, the works of Celsus, Scribonius and Pliny provide an accurate representation of the many botanicals used by their predecessors, the Republican *medici*. Using these pharmaceutical texts from the Early Empire as a springboard, it is possible to examine some of the particular drugs that would have been used in Republican Rome for the treatment of specific urban diseases.

Urban Disease and Urban Approaches to Medicine

Diseases particular to the urban environment determined much of the job of the Roman physician. Plautus (254-184) provides a unique perspective on the occurrence of disease in the city for the student of ancient medicine. His dramatic performances contain an extraordinary number of references to diseases, doctors and drugs. Plautus' comedies required him to use material that would have been familiar to a general audience, not just the educated or the aristocratic elite. His spectators needed to be able to recognize specific references to diseases and drugs in his performances or the material would certainly have fallen on deaf ears. Plautus referred to easily recognizable diseases in his performances, in the same manner as his stock characters and their exaggerated

personalities were readily accessible to the Roman imagination.¹⁸ Because he needed to appeal to local Roman audiences, it is likely that the medical references in his plays were taken from the most common experiences of the average city dweller, and were therefore the most prominent forms of illness encountered by the audience. Easily recognizable diseases became standard material for the playwright because of their universal nature; his audience could laugh at his jokes about diseases and drugs precisely because they were able to understand them.

Plautus mentions a number of specific diseases in his plays, and occasionally speaks about their common symptoms. These references provide some clues about specific diseases encountered by those living in Rome, and often shed significant light on the medical practices of the Republic. For example, in his *Menaechmi*, a doctor (*medicus*) is summoned for the purpose of diagnosing and treating Menaechmus, who has feigned a sudden attack of insanity. The doctor arrives on the scene somewhat tardily because of a previous concern with a case involving bone setting. He immediately inquires about the nature of the patient's apparent illness, and then asks if he has shown any signs of demon possession (*laruatus*), paranoia (*cerritus*), lethargy (*veternus*) or generalized edema (*aqua intercus*), a line of questioning that certainly would have branded him as a Greek physician.¹⁹ His superstitious anxiety regarding demon

¹⁸ Although the comedies of Plautus are based on Greek models and even set in Greek surroundings, the poet repeatedly appeals to the sensibilities and cultural background of his Roman audience. "Plautus was composing his comedies in a specific time and place and for a specific audience, and so the Roman connection is as important as, if not more important than, the Greek connection... Anyone who reads a Plautine comedy or, better still, sees a performance of a play of his realizes that Plautus was a dramatist who regularly worked to produce a direct relation between himself and the audience" W.S. Anderson *Barbarian Play: Plautus' Roman Comedy* (Toronto, 1993): p.136.

¹⁹ Plautus *Menaechmi* 890-1. Plautus uses the same expression for possession and insanity elsewhere: "*tu certe aut laruatus aut cerritus es*" *Amphitruo*: fr. 8.

possession is uncharacteristic for a Roman, and does not reflect the methodology of rural physicians. This reference to demon possession may indicate the doctor's familiarity with epilepsy, a neurological disorder frequently associated with demonic influence in antiquity, but such concerns are clearly the product of Greek tradition rather than Roman, and after all, he is supposed to be a Greek doctor. Delirium, lethargy and edema are characteristic of a number of diseases and do not directly indicate one particular illness, but again they represent a line of questioning expected from a Greek physician rather than a Roman doctor. The Greek 'flavor' of the doctor's clinical approach is not at all surprising when we consider that Plautus' plays are based on Greek models, and are often set in Greek cities. However, the Roman audience is clearly meant to find the doctor's actions risible, and Plautus may have used the stark contrast between Greek and native Roman medical practices to make this point.

Although Plautus' Greek physician was clearly incompetent, and therefore quite funny, the play's context was nevertheless quite real and the diseases were equally as serious. Prolonged fever of any sort often results in dementia and delirium, while liver, heart and kidney failure can be produced by a number of infectious and non-infectious diseases.²⁰ Because dementia and edema are general symptoms that do not indicate any single disease state, it is difficult to determine what particular disease Menaechmus was pretending to have in this play. For example, malaria in its final stages can cause renal failure, which itself produces signs of lethargy, delirium and generalized edema, but the symptoms are not sufficient to conclude that Plautus was speaking specifically about malaria. Although we are not able to make a reliable diagnosis of his condition, the other

²⁰ A. Fauci et al. (eds.) *Harrison's Principles of Internal Medicine* (New York, 1998): pp.210-14.

characters in the scene clearly believe he is insane. This illness is of course feigned, but is represented as a genuine form of acute disease (*morbum acrem*).²¹ The doctor ultimately concludes that Menaechmus' insanity requires a twenty-day regimen of hellebore. The scene proves to be comical because the theoretical approach of the doctor blinds him to the fact that Menaechmus actually has no disease. His lengthy prescription of hellebore was obviously lethal, and would have sent chills up the spine of any Roman audience, urban and rural alike.²² The doctor is not only useless, but also quite deadly.

This particular episode of Plautus' *Menaechmi* reveals much about urban medicine of the Republic. For example, Menaechmus' father-in-law—the character who summoned the doctor—clearly wanted him to determine the cause of the illness and prescribe the appropriate drug to treat his affliction. He embodies the Roman response to disease: Greek diagnosis is irrelevant, and drugs are the only therapy. Frustrated with the doctor's incessant questioning, he begs him to hurry up and give Menaechmus some form of medication: "Dear, Dear! Do you hear how wildly he talks? Why don't you hurry up and give him a dose of something before he goes insane entirely?"²³ The doctor insists on continuing his methodic questioning, to which the father-in-law anxiously replied: "Your chatter is deadly."²⁴ The scene beautifully illustrates the widespread mistrust for non-traditional medical practices among the Romans, and the strictly pharmaceutical approach of Roman doctors. The father-in-law stands in the place of the common citizen, who as a result of his urban lifestyle has little knowledge of Greek medical theory, but

²¹ Plautus *Menaechmi* 872.

²² Plautus *Menaechmi* 950.

²³ Plautus *Menaechmi* 919-20, translated by P. Nixon.

²⁴ "Occidis fabulans." From Plautus *Menaechmi* 922.

clearly trusts in the value of drugs for the treatment of disease. The Roman world trusted its own rustic traditions before the clever speculations of its Greek neighbors. For example, the famous Bithynian physician Asclepiades (1st century B.C.) practiced a particular brand of medicine that accommodated Roman faith in pharmaceutical therapy:

“Asclepiades’ medical teachings appealed to the Romans, since he avoided the great surfeit of terms and sophisticated philosophical reasoning characteristic of Greek medicine coming to Rome. There are many short accounts of his simplified medicine, general treatment, and effective relationships with his patients. He became famous for his aphorisms, ‘the duty of the physician is to treat safely, quickly, and pleasantly;’ ‘treatment consists merely of three elements: drink, food, and the enema;’ and ‘the use of wine is hardly less equal than the power of the gods.’”²⁵

Asclepiades’ practical approach to medicine caused ancient authorities to label him a charlatan but modern scholars have tried to grapple with his unique approach: “It is, however, far from the truth to call him a fraud, as the pharmacy below will demonstrate. He can be called an opportunist, and he did reject anatomy in favor of symptoms, but his medical view was firmly grounded in a carefully reasoned application of drugs and what today might be termed Common Sense.”²⁶ Maybe his strange—and by this I mean non-Greek—medical practices can be explained by his appeal to the Roman people. That is, Roman urban medicine of the Republic was nothing more or less than pharmacy; Romans trusted drugs not theories. Acting in accordance with his rural background, he only wants the physician to consider the symptoms and respond by prescribing the right medication. Here the conflict between theoretical and practical medicine is beautifully illustrated. Plautus’ doctor exhibits an excessively theoretical approach to the patient and then

²⁵ J. Scarborough, “The Drug Lore of Asclepiades of Bithynia,” *Pharmacy in History*. Vol. 17. No. 2. (1975): pp.44.

²⁶ Scarborough (1975): p.45.

prescribes a lethal dosage of a drug that was widely understood by the Romans to be dangerous. In addition, the doctor continued to question Menaechmus about symptoms that are clearly irrelevant. Each of his inquiries was met with a terse response that highlighted their absurd nature. In effect, the doctor questioned Menaechmus in an attempt to apply his foreign physiological theories to this particular situation. However, Plautus presents the whole process as decidedly unhelpful:

Medicus: Dic mihi hoc: solent tibi umquam oculi duri fieri?

Menaechmus: Quid? Tu me lucustam censes esse, homo ignavissime?

Medicus: Dic mihi: en umquam intestina tibi crepant, quod sentias?

Menaechmus: Ubi satur sum, nulla crepitant; quando esurio, tum crepant.

Medicus: Hoc quidem edepol hau pro insano verbum respondit mihi.

Perdormiscin usque ad lucem? Facilen tu dormis cubans?

Menaechmus: Perdormisco, si resolvi argentum cui debeo—

Qui te Iuppiter dique omnes, percontatur, perduint.

Doctor: Tell me, do your eyes ever become hard?

Menaechmus: What? Do you think I am a lobster, you useless man?

Doctor: Tell me, do your guts ever make noise, as far as you can tell?

Menaechmus: There's no noise when I'm full; when I'm hungry, then they make noise.

Doctor: My goodness! That's certainly a sane response. Do you sleep through the night until sunrise? After jumping into bed, do you quickly fall asleep?

Menaechmus: I sleep through the night if I've paid my debts—May Jupiter and all the other gods make off with you, you Inquisitor.²⁷

The audience probably laughed at this back-and-forth banter because it represented typical problems with Greek doctors in Rome. The doctor's questions only served to aggravate the situation, and certainly provided no direct relief. In the Roman mind, the sick are in need of medication, not theory. This is what the father-in-law expects, and

²⁷ Plautus *Menaechmi* 923-30, my translation.

what the audience anticipates as native Romans, but the doctor's Greek training only hinders his medical practice. In the eyes of the poet, the Romans understood the practical nature of disease and treatment far better than their theorizing neighbors.

Moving beyond the conflict between Greek theorizing and Roman traditional practices, Plautus has much to say about specific diseases and their treatment. Evidence like this helps to shed light on the plight of Roman urban dwellers, while giving us clues about the practices of the urban physician. The landscape of the ancient city provided a distinct ecological niche that was significantly different from its rural surroundings. Many factors influence the distribution of infectious pathogens in the urban environment. Disease prevalence is determined by a myriad of variables including location, population density, occupational hazards, hygiene and cultural practices. Because these social and environmental factors are different from those found on the farm, the urban setting possesses a unique set of pathogens and hazards, which exhibit a pattern of disease distribution that is much different than that seen on Cato's estate. The Romans clearly understood that the city environment provided a different set of health problems, and openly acknowledged the unhealthy effects of civic life.²⁸ Despite an understanding of the problems associated with crowded urban cities, it is clear that the Romans did little to promote public health:

"In short, there was urban pollution in antiquity, and some of its ill-effects were noted...But they had no concept of what we might think of as public health; a healthy community was one made up of healthy individuals, and the doctor's concern was with those individuals, not with any larger entity, like a city state or the republic."²⁹

²⁸ Celsus *De Materia Medica* 1.2.

²⁹ V. Nutton "Medical Thoughts on Urban pollution" in V. Hope, E. Marshall (eds.) *Death and Disease in the Ancient City* (London, 2000): p.72.

The crowded conditions of Rome, and the nature of urban life may have provided an opportunity for endemic and epidemic disease to thrive, but Plautus used this depressing reality to bring humor to the stage. If Aristophanes could make the Athenians laugh about sickness immediately following the great plague at Athens, then Plautus could certainly entertain his audience by playful references to urban health problems caused by close quarters and crowded city life.

One social custom associated with Roman city life that clearly promoted the spread of infectious disease was prostitution. This trade, found primarily in large urban centers of antiquity, was a factor of city life that undoubtedly sparked the interest of Plautus and his Republican audience. In his *Cistellaria*, Plautus provides a brief glimpse into the life of the prostitute. Syra, a drunken madam, and her daughter Gymnasium, a fellow prostitute, struggle together with the difficulties of their trade in the Greek coastal city of Sicyon, a place where any sailor could find some form of entertainment after reaching port.³⁰ Syra, despite her aristocratic clientele, appears to be quite poor: "It wasn't out of highhandedness I forced my girl here into my own profession; it was only that I shouldn't go hungry."³¹ Although the setting is a Greek town, the Roman audience was well aware of the problem of prostitutes in the city. In a shocking and pitiable scene, Plautus paints a striking portrait of the physical effects of prostitution. Gymnasium describes the streets where she plies her trade and then describes the girls who work there:

³⁰ Plautus *Cistellaria* 13-15.

³¹ Ibid. Line 40, translated by P. Nixon.

**“Non quasi nunc haec sunt hic, limaces, lividae,
febriculosae, miserae amicae, osseae,
diobolares, schoenicalae, miraculae,
cum exiritis talis, cum todillis crusculis.”**

**“Not like those you find in the street now: slugs with an ashen complexion,
prone to fevers, miserable girls, emaciated,
two-bit, cheap scented freaks,
with their scrawny worn down legs.”³²**

The description is far from flattering but is probably an accurate depiction of the poverty and ill health of those who were unfortunate enough to participate in the profession of ancient prostitution. Gymnasium's prostitute is a sickly, malnourished woman who frequently contracts disease, or at very least bears the scars of chronic illness. Her gray skin color could have been the result of poor diet, difficult lifestyle, or frequent bacterial and viral infections. A prostitute of this time period would have been susceptible to a number of sexually transmitted diseases as well as non-sexually transmitted primary and secondary infections. Roman physicians were probably well aware of the manner in which sexually transmitted diseases were spread, and the fact that Plautus presents his prostitutes as “fever-prone” (*febriculosae*) indicates that Romans of the Republic were also aware of certain non-specific health problems associated with the trade.

Many sexually transmitted diseases can cause a wide range of physical problems and are potentially fatal if left entirely untreated. For example, genital warts caused by the human papilloma virus (HPV) have been directly linked with several forms of

³² Plautus *Cistellaria* 384-87, 408, my translation.

cancer.³³ Herpes when left alone easily spreads across the genitals causing extensive tissue damage, sexual dysfunction and intense pain.³⁴ Also, chlamydia can result in blindness and other complications.³⁵ Finally, hepatitis kills by destroying the liver and thereby interfering with the body's normal metabolic processes.³⁶ Sex with prostitutes of the Republic was obviously dangerous, but there was certainly a market for the trade, especially among aristocrats who could afford their services. Syra complains about the wives of the noblemen who seek her services, revealing that men visited prostitutes from the higher socioeconomic levels of Republican society.³⁷ Whatever their social status, those who visited prostitutes were subject to contracting serious illnesses; the wives of these men were naturally in danger of becoming sick as well. Due to the probable prevalence of venereal disease in Rome, it is understandable that Roman medicine of the period would be concerned with the proper curative measures. If this was indeed the case, our texts should reflect a common interest in those drugs used to treat sexually transmitted diseases.

The streets and alleys of Republican Rome may have been frequented by sick prostitutes, but there were additional dangers lurking in the shadows. Any large city in antiquity, with its markets, food stalls, and poor waste management, was an ideal environment for scavengers such as rats, mice and dogs. Domesticated dogs, in the form

³³ For example, genital warts caused by the human papilloma virus (HPV) have been directly linked with several forms of cancer; see A. Evans et al. (eds.) *Viral Infections of Humans* (New York, 1997): pp.983-1014.

³⁴ Ibid. pp.419-64.

³⁵ Complications including endometritis, urethritis and pelvic inflammatory disease (PID) see: A. Evans et al. (eds.) *Bacterial Infections of Humans* (New York, 1998): pp.197-220.

³⁶ Evans (1997): pp.363-406.

³⁷ Plautus *Cistellaria* 22-38.

of hunting, herding and guard dogs, may have been a boon for farmers and shepherds, but in the city wild dogs became a widespread vector for the transmission of deadly diseases.³⁸ Rabies, a viral infection with a 100% mortality rate, is easily transmitted to humans in the saliva of infected dogs.³⁹ Plautus refers to the “lunatic ravings” of those who appear to act in a similar manner to those actually affected by rabies. In his *Captivi*, Aristophantes is said to have a sudden attack of this maddening disease, which causes him to appear insane.⁴⁰ Terence also speaks of rabies in his *Eunuchus*, where he describes the madness of Chaerea’s love as a form of the disease.⁴¹ Both playwrights use the disease as a metaphor to illustrate the actions of characters that act in an irrational manner. In fact, rabies was so well known to the Roman audience that it was actually easier for Plautus and Terence to speak about rabid behavior than to describe in any detail the behavior of a madman. The image of the rabies-infected lunatic is strikingly vivid, and needs no embellishment. Roman spectators were obviously well acquainted with the maniacal behavior of animals and humans suffering from rabies, and clearly understood the intent of playwrights who used the image of this sickness to illustrate derangement.

Indeed, the use of the rabies metaphor extended well beyond the stage. The madness of rabies so affected the imagination of the average Roman, that the word “*rabies*” itself was used to indicate general maniacal ravings—in addition to the disease itself. Rabies signified the irrational frenzied raving as seen in the victims of the disease, and not simple madness. A good example can be found in Livy:

³⁸ For dogs and their valuable role on the farm see Varro *De Re Rustica* 2.9.

³⁹ Evans (1997): pp.665-85.

⁴⁰ Plautus *Caaptivi* 558.

⁴¹ Terence *Eunuchus* 301.

“Praecipue convertit omnes subtractus Numida mortuo superincubanti Romano vivus naso auribusque laceratis, cum ille, manibus ad capiendum telum inutilibus, in rabiem ira versa laniando dentibus hostem exspirasset.”

“But what most drew the attention of all beholders was a Numidian who was dragged out alive from under a dead Roman, but with mutilated nose and ears; for the Roman, unable to hold a weapon in his hands, had expired in a frenzy (in *rabiem*) of rage, while rending the other with his teeth”⁴²

Lucretius applies the rabies metaphor to randy lovers by portraying sexual intercourse as a frenzied and violent act performed by a rabid lover:

**“ ...Etenim potiundi tempore in ipso
fluctuat incertis erroribus ardor amantum
nec constat quid primum oculis manibusque fruantur.
quod petiere, premunt arte faciuntque dolorem
corporis, et dentes inlidunt saepe labellis
osculaue adfligunt, quia non est pura voluptas
et stimuli subsunt qui instigant laedere id ipsum,
quodcumque est, rabies unde illaec germina surgunt.
Sed leviter poenas frangit, Venus inter amorem,
blandaque refrenat morsus admixta voluptas...
...adfigunt avide corpus iunguntque salivas
oris et inspirant pressantes dentibus ora...
...tandem ubi se erupit nervis conlecta cupido,
parva fit ardoris violenti pausa parumper.
inde redit rabies eadem et furor ille revisit,
cum sibi quod cupiunt ipsi contingere quaerunt,
nec reperire malum id possunt quae machina vincat:
usque adeo incerti tabescunt vulnere caeco.”**

⁴² Livy *Ab Urbe Condita* 22.51.9, translated by B. Foster.

“Indeed, in the very time of possession, lover’s ardor is storm-tossed, uncertain in its course, hesitating what first to enjoy with eye or hand. They press closely the desired object, hurting the body, often they set their teeth in the lips and crush mouth on mouth, because the pleasure is not unmixed and there are secret stings which urge them to hurt that very thing, whatever it may be, from which those germs of frenzy (*rabies*) grow.

But Venus gives a light break to the suffering amidst their love, and the soothing pleasure intermingled curbs back the bites...they cling greedily close together and join their watering mouths and draw deep breaths pressing teeth on lips...At length when the gathering desire has burst from their loins, there is a short pause for a while in the furious burning. Then the same frenzy (*rabies*) returns, and once more the madness comes, when they seek to master the trouble; in such uncertainty do they pine with their secret wound.”⁴³

Lucretius’ lover seems to be transformed into a rabid dog; the crazed lover exhibits all the signs of the disease. His confusion, frothing at the mouth, burning fever and desire to bite his mate are clear signs of his rabid condition.⁴⁴ Lucretius even says that his lover’s frenzied state has been caused by a secret wound (*volnere*). This further enhances the association with rabies; for it was well known that a wound inflicted by a rabid dog caused the disease.⁴⁵ Rabies is a particularly horrific disease and must have caused considerable fear for city dwellers in antiquity. Although Romans living in the Republic used drugs in the “treatment” of the disease, the outcome was almost certainly always fatal. However, the medications they used may have provided some measure of relief.

⁴³ Lucretius *De Rerum Natura* 4.1076-1120, translated by W. H. D. Rouse, revised by M. Smith.

⁴⁴ The symptoms of rabies are clearly manifested by the lover, but the passage also must be considered in the light of Epicurean views of sexual pleasure and mental distraction. See: Don and Peta Fowler, *Lucretius On the Nature of the Universe* (Oxford, 1997): p.248.

⁴⁵ Livy speaks of the civic strife in Rome in the year 446 as the activity of rabid wolves: “Occaecatos lupos intestina rabie opprimendi occasionem esse” (Livy *Ab Urbe Condita* 3.66.4). The reference to wolves is twofold: wolves can be rabid, and the Roman people are descendants of the twins that were suckled by the she-wolf.

The bite of a rabid street-dog was one means of promoting the spread of disease, but the close quarters and crowding of the urban landscape certainly fostered by itself an environment that promoted the spread of many different types of infectious bacteria. One particular organism clearly ravaged the inhabitants of Republican Rome. *Streptococcus pyogenes* is a particularly aggressive bacterium that causes a number of diseases including pharyngitis, or “strep-throat,” and erysipelas. This organism can also trigger rheumatic fever and kidney disease even after it has been eliminated from the body.⁴⁶ Pharyngitis is characterized by an inflammation of the pharyngeal mucosa accompanied by purulent exudate. The infected patient is usually febrile and shows signs of general malaise or lethargy. The pain associated with strep-throat can be mild or quite severe.⁴⁷ Many of ancient texts bear witness of the widespread nature of this disease. In addition, erysipelas was one of the most easily recognizable diseases of antiquity. The bright red skin lesions found on the face and limbs of those suffering from erysipelas are accompanied by an intensely painful burning sensation.⁴⁸ Better hygiene may have helped to prevent bacterial infections such as these, but the close contact of humans afforded by city life is undeniably a major factor in the spread of this variety of infectious diseases. *Streptococcus pyogenes* colonizes the respiratory tract, and creates reservoirs in asymptomatic patients who then become a source for endemic infections.⁴⁹ That is, apparently healthy Romans could have easily spread infections like this without any knowledge of their doing so. Although the diseases caused by *Streptococcus pyogenes*

⁴⁶ Fauci et al. (1998): pp.885-889.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Evans et al. (1998): pp.690-91.

are not considered a public threat today, they would have been a major source of endemic and epidemic outbreaks in antiquity. Also, it is important to remember that our modern world views strep-throat as an uncomfortable and inconvenient illness, but in Rome it was quite serious and even oftentimes deadly, as is evident from a line in the *Mostellaria*: “Oh, if I could change into a quinsy (pharyngitis), so as to catch that viper in the throat and kill her off, the foul old fiend!”⁵⁰ Plautus’ characters clearly understood the lethal nature of this ancient menace. It is likely that a disease like the pharyngitis caused by *Streptococcus pyogenes* was a major source of plague in antiquity, if not repeated infection. Indeed, it may even be the most obvious candidate for many of Livy’s plagues.

Erysipelas, an equally frightening disease to the Romans, was perhaps best known for the intense pain it caused. The physical discomfort it caused, and the obvious changes to the skin resulting from the damaging effects of an infection, made it an easily recognizable disease. Lucretius, in explaining the nature of volcanoes such as Mount Etna, includes a description of erysipelas among other painful affections:

**“Numquis enim nostrum miratur, siquis in artus
accepit calido febrium fervore coortam
aut alium quemvis morbi per membra dolorem?
Obturgescit enim subito pes, arripit acer
Saepe dolor dentes, oculos invadit in ipsos,
existit sacer ignis et urit corpore serpens
quamcumque arripuit partim, repitque per artus,
nimirum quia sunt multarum semina rerum,
et satis haec tellus morbid caelumque mali fert,
unde queat vis immensi procreare morbi.”**

**“Are any of us amazed if our joints
suddenly become inflamed with intense heat,
or when any other painful disease attacks the body?”**

⁵⁰ Plautus *Mostellaria* 219, translated by P. Nixon.

**The foot suddenly becomes swollen. Sharp,
unremitting pain seizes the teeth, or attacks the eyes themselves.
Erysipelas breaks out; slithering over the body
it burns any part it attacks, and even creeps over the extremities.
Of course this is all because the germs of many things are present—
the earth and sky carry an abundance of disease—
from which the force of the most devastating illness comes into existence.”⁵¹**

The use of erysipelas here augments the poet's concern for the painful nature of disease itself, and the unpredictable nature of illness in general. With a few exceptions—for which we are uncertain of the type of disease mentioned because our texts are too general—most of the fatal diseases in antiquity are easily treatable by today's standards. For example, Erysipelas was undoubtedly a trying experience in antiquity, but it can be eliminated with simple antibiotics because it is caused by bacteria.⁵² Gout, a painful joint disease, is easily treated with colchicine. Toothaches caused by infection were potentially lethal for the Roman world, but for us they are easily taken care of with brief dental surgery and strong antibiotics. Roman authors may seem foreign to us when we consider the significant influence of such common diseases on their writings, but the weaknesses of their medical practices and the pathogen-promoting lifestyle prevalent in their cities may explain their prominent role in the creation of their literature.

Turning from the crowded streets and common areas of Rome to the household, our sources reveal much about Roman genetic disorders and common ailments of a non-infectious nature. To take just one example, epilepsy, a seizure disorder, often frightened the general public, and was clearly misunderstood by the Romans of the Republic. In the

⁵¹ Lucretius *De Rerum Natura* 6.655-664, my translation.

⁵² Commentators have identified the erysipelas of the *De Rerum Natura* as a streptococcal skin infection. See: Fowler (1997): p. 274.

Captivi, Aristophantes is said to have attacks of the disease that caused people to spit upon its victims: "Et illic isti qui insputatur morbus interdum venit./ Just like those who get spat upon when their disease periodically comes on them."⁵³ The superstition of spitting on an epileptic was a prophylactic measure meant to prevent the disease from affecting others. Despite the efforts of Hippocratic physicians to prove that epilepsy had a natural etiology rather than supernatural origins, the Romans, like most Mediterranean peoples, probably believed that the disease was the direct result of demonic possession and could be magically averted by mysterious acts like spitting on the person affected.⁵⁴ The Latin expression for epilepsy, *morbis comitialis*, reinforces this superstitious approach of the Romans. An attack of epilepsy on the day of the assembly, or *comitia*, forced the participants to disband the meeting and to cease conducting the affairs of state.⁵⁵ The Romans of the Republic, unlike their contemporaries in Greece and southern Italy, never clearly distinguished spiritual and physical contamination. The magical act of spitting on the person with epilepsy is certainly a reflection of the particular superstition surrounding a disease that was so visually horrifying. Lucretius includes a graphic description of an epileptic seizure in his masterful work, the *De Rerum Natura*:

**"Quin etiam subito vi morbis saepe coactus
ante oculos aliquis nostros, ut fulminis ictu,
concidit it spumas agit, ingemit et tremit artus,
desipit, extentat nervos, torquetur, anhelat
inconstanter, et in iactando membra fatigat."**

⁵³ Plautus *Captivi* 550, my translation.

⁵⁴ The Hippocratic *On the Sacred Disease* is an entire treatise dedicated to dispelling the myth that epilepsy was caused by demons.

⁵⁵ For epilepsy and magical or superstitious influences see: O. Temkin *The Falling Sickness: A History of Epilepsy from the Greeks to the Beginnings of Modern Neurology* (Baltimore, 1971): p.8.

“Or it may happen that a man is seized with a sudden spasm of epilepsy before our eyes. He falls as though struck by lightning and foams at the mouth. He groans and trembles in every joint. He raves. He contracts his muscles. He writhes. He gasps convulsively. He tires his limbs with tossing.”⁵⁶

The depiction of an epileptic seizure is as accurate as it is disturbing. Lucretius uses epilepsy as an example of a disease that affected both the patient's physical body and consciousness, in order to draw a specific conclusion that directly supports his Epicurean theories: because the mind, like the body, can be affected by illness and treated with medicine, it must be mortal. That is, Lucretius uses epilepsy, a common malady to illustrate a philosophical point. His reader needs no medical background to understand that an epileptic fit affects both mind and body. On the contrary, Lucretius probably chose this specific disease because, like Plautus, his audience was already familiar with the events of a seizure. Like rabies, epilepsy was not curable; unlike rabies, epilepsy was chronic and only resulted in the death of the patient when the seizure episode itself caused some critical injury. Because an epileptic seizure can happen at any time, its victim can fall into a fire, drown, or even suffer from a broken neck by simply falling to the ground. The drugs used to treat this disease may have had some prophylactic capacity, but it is far more likely that they merely provided a measure of comfort for the patient. Despite this question of drug efficacy, the Romans were well acquainted with the malady known as the *morbus comitialis*, and tried to derive prescriptions to treat it.

⁵⁶ Lucretius *De Rerum Natura* 3.487-91, translated by R. Latham.

The Birth of the Urban Pharmacist

As we have seen, city life in Rome fostered an environment quite different from that of the rural countryside. Cato's rustic estate, with its splendid variety of trees, shrubs, vegetable gardens and acres of carefully cultivated land was replaced by the hustle and bustle of the Forum with its crowds of excited merchants and wealthy traders, who sold their local wares and exotic goods to an eager populace. Here, the aristocrat and commoner walked side by side, as each vied to conduct their business in the frenzied heart of the city. The *tabernae* provided hot meals and a welcome respite to those wearied by the incessant haggling of merchants and customers over the prices of various textiles, jewelry, spices and household goods. Beyond the Forum, one could visit wealthy neighborhoods located on the Palatine and Quirinal hills or the modest housing developments of the *Subura*, where Roman citizens rubbed shoulders with resident aliens from all corners of the Mediterranean. A number of food markets, temples and civic structures provided the additional resources required for daily life and civic administration.⁵⁷ The sheer size of a large urban center like Rome and its wondrous distractions can be seen in Plautus' *Amphitruo*, where the title character finds that he becomes exhausted by simply walking around the city. The play is set in Thebes where one would expect to find busy markets and temples, but several of the sites described are particularly Roman, and betray Plautus' adaptation of Greek affairs to city life in Rome:

**"Naucratem quem convenire volui, in navi non erat,
neque domi neque in urbe invenio quemquam qui illum viderit.
Nam omnis plateas perreptavi, gymnasia et myropolia;
apud emporium atque in macello, in plaestra atque in foro,**

⁵⁷ P. Grimal *Roman Cities* (Madison, 1983): pp.28-38.

**in medicinas, in tonstrinis, apud omnis aedis sacras sum defessus
quaeritando.”**

“Naucrates, whom I wanted to get hold of wasn’t on the ship, and not a soul can I find at his house or in the city who has seen him. Why I’ve hobbled through every street, gymnasium, and perfumery shop: down in the bazaar and the market, at the athletic field and the forum, too, at the doctor’s, the barber’s, the holy temples from first to last—I’m tired to death looking for him.”⁵⁸

Rome certainly provided its population with a myriad of resources and pleasant distractions, but its citizens paid a significant price for crowded urbanization; rural self-sufficiency and agrarian knowledge, including an awareness of drugs, were ultimately stifled by the business of daily life. The traditional familiarity with the farm and the native flora of the countryside which passed from generation to generation by practical experience, and exposure to medically knowledgeable field slaves and overseers, was severely restricted by the demands of the burgeoning metropolis. In the civic forge of Rome, the knowledge of botanicals and traditional curatives became a form of cultural dross—destined to be purged from urban customs and social practices. The pressures of city life stripped pharmaceutical practices from the hands of the farming staff and neighboring *medicus*, and thereby paved the way for drug stalls and the birth of urban pharmacy.

⁵⁸ Plautus *Amphitryon* 1009-15. Translated by P. Nixon. The forum, gymnasium and emporium are easy enough to imagine as elements of a Greek city, but the names for the doctor’s and barber’s shops (*medicinis, tonstrinis*) are derived from Latin roots and therefore indicate a Romanized setting. One commentator links the mix of Greek and Roman scenery with moral decline: “A mix of primarily Greek places (gymnasia, myropolia, and palaestra would probably suggest foreign decadence to much of P.’s audience) with a few belonging to the landscape of urban Rome” D. Christenson (ed.) *Plautus Amphitruo* (Cambridge, 2000): p.293. Christenson also notes that the stalls of physicians and barbers in Athens and Rome were popular public venues for the latest gossip (p.294).

Rome did not flourish in a pharmaceutical vacuum. Drugs were equally as valuable in the city as they had been in the countryside, and the demand for their acquisition and distribution was far greater in the crowded urban environment. The deadly influence of the various infectious diseases and plagues regularly encountered in the city forced the Romans to consider the issues of medicine and healing in the midst of their awkward isolation from the established system of medical consultation found on the farm. Whereas the Roman farmer was able to rely on the medical knowledge of his *vilicus*, herdsmen and neighborhood *medicus* to treat disease, the common city dweller lacked any such support system, and would have been unaware of the methods for acquiring and preparing pharmaceuticals. The urban medical expert was able to step into this therapeutic void in order to supply the city's inhabitants with bits of advice and all the drugs they needed.

This narrowing of specialized drug knowledge is often reflected in Republican literature. For instance, all of Plautus' characters obtain their drugs from the *medicus*, and none of them displays any personal knowledge of particular drug preparations.⁵⁹ This seems to indicate that by the late third century B.C. the average Roman citizen was significantly unfamiliar with the process of preparing and successfully employing drugs to combat disease. For example, the old man in the *Menaechmi* wants the doctor to prescribe a drug, but unlike the Roman farmer, he has no knowledge of any specific medications and is unable render assistance or even suggest an alternate form of treatment. His ignorance of the proper remedy flusters him, and he is forced to rely upon the doctor's experience despite this quack's obvious ignorance. The doctor recognizes

⁵⁹ For the strict reliance of doctors on medications see: Plautus *Cistellaria* 73; *Menaechmi* 995; *Mercator* 471.

that hellebore was commonly used to treat the patient's particular disorder, and readily prescribes the drug, albeit a potentially lethal overdose.⁶⁰ Scenes like reveal that urban doctors obviously employed some level of drug knowledge and thereby used their therapeutic skills to profit from the large number of pharmacologically-challenged patients of the city. Citizens of Rome expected their physicians to dispense drugs and not make diagnoses; the typical urban dweller respected native drug-knowledge rather than philosophical speculation or schooled conjectures. Stated simply, the counterpart to the country doctor was the urban pharmacist, both of whom were simply referred to as *medici*. This represented a shift of knowledge from the rural community to the urban specialist.

This ignorance of beneficial remedies among the urban inhabitants of Rome of the third and second centuries B.C. can be traced back to earlier fourth century attitudes toward drugs. During the fourth century, urban society first directly confronted general safety issues regarding the widespread practice of rural pharmacy within the city limits. Rural drug knowledge had crept into the city with the natural influx of immigrants from the countryside, and city officials perceived their practices as a threat to the well-being of the population at large. The struggle came to a head in 331 B.C., when Roman officers grappled with the potentially lethal menace of traditional medicines:

"Foedus insequens annus seu intemperie caeli seu humana fraude fuit...Cum primores civitatis similibus morbis eodemque ferme omnes eventu morerentur, ancilla quaedam ad Q. Fabium Maximum aedilem curulem indicaturum se causam publicae pestis professa est...Tum patefactum muliebri fraude civitatem premi matronasque ea venena coquere, et si sequi extemplo velint, manifesto deprehendi posse. Secuti indicem et coquentes quasdam medicamenta et recondite alia invenerunt."

⁶⁰ Plautus *Menaechmi* 899-965.

“A terrible year succeeded, whether owing to the unspeakable weather or man’s depravity...When the leading citizens were falling ill with the same kind of malady, which had, in almost every case the same fatal termination, a certain serving woman came to Quintus Fabius Maximus, the curule aedile, and declared that she would reveal the cause of the general calamity...(she) disclosed the fact that the City was afflicted by the criminal practices of the women; that they who prepared these poisons were matrons, whom, if they would instantly attend her, they might take in the very act. They followed the informer and found certain women brewing poisons (*medicamenta*), and other poisons stored away.”⁶¹

One hundred and seventy two matrons were found guilty of making lethal drugs, although they maintained that the medicines were meant to restore health. Several were forced to consume their own drugs and died as a result. Livy says that this was the first official inquiry into the making of poisons (*quaestio de veneficiis*) in Rome, but his work shows that it was clearly not the last.⁶² The process of bringing formal charges against citizens suspected of making poisons carried enough weight to necessitate an inquiry of the highest governing body in the Republic, namely the Senate. Polybius, a Greek historian of the second century B.C., in writing about the duties of this reverend body makes it clear that the trial for poison-making was an integral function of the Roman constitution: “Similarly crimes committed in Italy which require a public investigation,

⁶¹ Livy *Ab Urbe Condita* 8.18.1-8, translated by B.O. Foster.

⁶² During the plague of 180 B.C., another official inquiry into the manufacture of poisons was ordered by the Senate and handed over to the praetor Gaius Claudius for prosecution (Livy *Ab Urbe Condita* 40.37.4.). On conspiracies and poisoning see: S. P. Oakley *A Commentary on Livy Books VI-X* (Oxford, 1998): Vol. II. pp.594-7. Oakley questions the historical veracity and annalistic tradition behind Livy’s accounts of poisoning conspiracies, but does not doubt that this particular inquest (331 B.C.) took place: “L. records that this was the first trial *de veneficiis* at Rome, and this, together with the fact that the affair was regarded as a prodigy, explains why it was likely to have been remembered...L. regarded the affair as having been investigated in a *quaestio*, that is, by a specially appointed commission chaired by a magistrate; this procedure was particularly suitable where a multiplicity of defendants was involved...With regard to the two alleged early examples, the authenticity of the *quaestio* of 413 is most doubtful...nor is the alleged *quaestio* of 314 any more certain...The external *quaestiones* of 303, 206 and 204 present no problems. Our passage (concerning the conspiracy of 331) thus provides the first evidence which is generally above suspicion for a *quaestio* at Rome” (Vol. II. p.596).

such as conspiracy, poisoning, and assassination, are under the jurisdiction of the senate.”⁶³ The charge of poison making (*veneficium*) was certainly a very serious accusation. The grave nature of the charge created hostility and fear of traditional pharmaceutical practices. This dread of legal prosecution can be seen illustrated in Terence’s *Hecyra*, where the slave Parmeno expresses anxiety over the possibility of being blamed for exacerbating the illness of his mistress.⁶⁴ He fears being accused of bringing poison into his master’s household. The language is strikingly legal; the slave fears that some of his associates will allege (*comminiscentur*) that he brought into the house a substance that was potentially lethal (*aliquid tulisse comminiscentur mali capite atque aetati illorum*). As this example demonstrates, the Senate actively discouraged the common citizen of Rome from dabbling in the art of pharmacy. In creating and enforcing laws against the making of poisons, the Senate effectively removed the practice of pharmacy from the hands of private citizens and thereby made it the exclusive trade of the *medicus*. Unlike their rural counterparts, average city-dwellers faced the possibility of serious penalties for making and distributing drugs, and therefore abandoned the practice altogether.

The urban environment may have curtailed the spread of pharmaceutical knowledge within the general population, but it also augmented and intensified the development of the science of pharmacy within the community of *medici*. The constant outbreak of epidemics and the repetitious cycle of hyperendemic disease certainly created a demand for effective medical treatment, but the single most compelling force in the development of medicine in the city was the stability of the Roman government itself. In

⁶³ Polybius *Histories* 6.13.4.

⁶⁴ Terence *Hecyra* 333-4.

a plague, the loss of a consul, senator or city official was certainly devastating, but political posts could always be refilled. The consuls possessed *imperium*, the ability to lead a Roman army against its enemy, but this power resided not in the consulship itself, nor in the Senate which conferred the responsibility itself, but in the strength of the Roman military and its ability to enforce senatorial decrees. That is, Roman military might was a significant factor in maintaining political stability in the Republic, and therefore became an impetus for medical development.

Any considerable obstacle to the effectiveness of the army on the battlefield was a serious challenge to the survival of the Republic and promptly inspired city officials to seek out swift and efficacious solutions. Disease in the ranks decreased the levy of soldiers and damaged the army's ability to perform well in combat. The crowded setting and poor sanitation prevalent in urban centers—factors which promoted the spread of disease—were conditions that could also be found in Roman military camps. Plague broke out among soldiers just as it did in the city.⁶⁵ Entire armies, even in the midst of war, were disbanded as a result of disease.⁶⁶ Plagues also affected the enemies of Rome, and could quickly change the outcome of a battle.⁶⁷ In the second Punic war, both the Roman and Carthaginian armies were afflicted with an outbreak of pestilence (*pestilentia*). Livy relates the details of a devastating illness that attacked both camps during an engagement at Syracuse:

“Accessit et ab pestilentia commune malum quod facile utrorumque animos averteret a belli consiliis. Nam tempore autumnii et locis natura

⁶⁵ For plague in the Roman army see: Livy *Ab Urbe Condita* 25.26.7; 28.46.15; 41.6.6.

⁶⁶ Plague at Remini: Livy *Ab Urbe Condita* 41.5.11.

⁶⁷ Plague in enemy armies: Livy *Ab Urbe Condita* 5.31.5; 14.48.1; 28.46.15.

gravibus, multo tamen magis extra urbem quam in urbe, intoleranda vis aestus per utraque castra omnium ferme corpora movit. Ac primo temporis ac loci vitio et aegri erant et moriebantur; postea curatio ipsa et contactus aegrorum volgabat morbos, ut aut neglecti desertique qui incidissent morerentur, aut adsidentis eadem vi morbi repletos secum traherent, cotidianaque funera et mors ob oculos...et ut ferro potius morerentur, quidam invadebant soli hostium stationes...et Carthaginienses, quibus nusquam receptus erat, cum ipsis ducibus Hippocrate atque Hamilcone ad internecionem omnes perierunt...multi tamen ex Romano exercitu eadem peste absumpti sunt."

"Then in addition pestilence brought to both sides a calamity which forthwith diverted the attention of the two armies from strategy. For owing to the autumn season and places naturally unhealthy, unendurable heat affected the health of nearly all the men in both camps, but much more outside the city than within. And at first they sickened and died owing to the season and their position. Later the mere care of the ill and contagion spread the disease, so that those who had fallen ill died neglected and abandoned, or else they carried off with them those who sat by them and those who nursed, having caught the same malignant disease. And so every day funerals and death were before their eyes...and some choosing to die by the sword, dashed into the outposts of the enemy single-handed...the Carthaginians, who had no refuge anywhere, with even their generals, Hippocrates and Hamilco, perished to the last man...many in the Roman army were carried off by the same pestilence."⁶⁸

The success of the state was directly connected with the health of its fighting force. A healthy army gave the Senate the ability to administer its affairs without fear of being unable to enforce its decisions. Drugs were necessary, but pharmacy was restricted to a small class of physicians or *medici* who opened small shops in the Forum where they would treat the sick by administering the appropriate medications.

As we discussed in chapter #1, the Roman medicus was a medical artisan with specialized drug knowledge, who gave advice and aid to farmers when requested. His urban counterpart seems to have had a similar understanding of the efficacious qualities

⁶⁸ Livy *Ab Urbe Condita* 25.26.7-15, translated by F. Moore.

of plants, but it is unclear whether he practiced in a similar contractual manner. To answer this we must turn, once again, to Republican literature in order to resurrect contemporary views of Roman medicine and pharmacy. The plays of Plautus are filled with references to doctors and drugs, but the business and technical expertise of pharmacy was clearly restricted to the *medicus*. Plautus' characters exhibit little knowledge of specific drugs and their use in medicine, and they are always in need of the services of a *medicus* when trying to obtain pharmaceuticals. The common man's medical knowledge is limited at best, and oftentimes anecdotal. In Plautus' *Mercator*, two slaves talk about the treatment of exhaustion and blood spitting, which may have been an indirect reference to tuberculosis:

Acanthio: Placide, volo adquiescere. Tua causa rupi ramites, iam dudum sputo sanguinem.

Charinus: Resinam ex melle Aegyptiam vorato, salvom feceris.

Acanthio: At edepol tu calidam picem bibito, aegritudo abscesserit.

Acanthio: Easy now, I want to rest a bit. Because of you, I've burst a lung and have been spitting blood for a while.

Charinus: Take some Egyptian resin mixed with honey, that'll make you better.

Acanthio: Yeah, right! And you should drink some hot pitch. That'll bring an end to your disease.⁶⁹

Egyptian resin (*resina Aegyptia*), was obtained from the tears (*lacrima*) of a species of mulberry or fig that grew in Egypt, and was used in the treatment of insanity.⁷⁰ According to Celsus, a first century A.D. medical author, it was one of several drugs used to cure psychoses, paranoia, depression and febrile dementia. The tears would have been

⁶⁹ Plautus *Mercator* 137-9, my translation.

⁷⁰ Celsus *De Medicina* 3.18.

obtained in a manner similar to those of the frankincense tree. Small cuts were made in the tree's branches, causing injuries to the tissues that stimulated the production of the resin. This sap was collected and then mixed with honey in order to make it more palatable. Charinus' suggestion that Acanthio use this drug is a good indication that the drug was well known even in the Republic for its use in treating various forms of dementia, and was probably selected by Plautus to elicit a humorous response from the audience. That is, Charinus mocks Acanthio's exaggerated description of the physical injuries he has suffered as a result of running around the city. But Charinus is one of the few characters in Plautus' works who displays a knowledge of specific drugs. Most allusions to drugs are either incidental, or are made in reference to attending a physician. Other characters in Plautus' comedies appear confident in the doctor's understanding of drug therapy. In fact, of all the medical references in Plautus, medications comprise the overwhelmingly predominant form medical treatment mentioned. Clear references to any of the treatments employed by Hippocratic physicians are conspicuously absent. This strict reliance on drugs distinguished native Roman medicine and its Italian *medicus* from foreign physicians like Archagathus.

Medicine was such an important aspect of city life in the Republic that doctors had specific quarters, or shops, where they would care for the sick and administer drugs. Medical suites are mentioned twice in the works of Plautus.⁷¹ The name for these quarters is the same as that used for "medicine" (*medicina*) itself, and does not denote a specific building or architectural structure. The Latin word *medicina* is an abstract noun based on the same root as *medicus* (doctor), *medicare* (to heal) and *medicamentum*

⁷¹ Plautus *Amphitruo* 1012; *Epidicus*: 197.

(curative). Unlike their Greek neighbors, Romans of the Republic never clearly distinguished the act of healing from the administration of drugs. The doctor's quarters are simply places where the physician can treat the patient. Roman therapeutics are centered exclusively on the application of remedies or drugs. Roman medicine of the Republic is Roman pharmacy. The two concepts are inextricably linked and can not be distinguished.

In the Roman mind, the urban *medicus* was responsible for discerning which drugs should be administered to the patient. This concept is beautifully illustrated in the *Cistellaria*, where Selenium laments her recent bout of love sickness:

Gymnasium: Bono animo es, erit isti morbo melius.

Selenium: Confidam fore, si medicus veniat qui huic morbo facere medicinam potest.

Gymnasium: Keep your chin up; you'll get over the illness.

Selenium: I'm sure I will, if a doctor should come who's able to make the right drug for this particular malady.⁷²

Selenium's concern is whether the physician will be able to treat her specific disease. He must, of course, be able to make a drug that will work in her particular situation. Like all of Plautus' characters, she is not concerned with theories of causation or the medical education of her doctor; she merely wants the right drug for her disease. That—in a nutshell—is the heart, soul and essence of Roman medicine. In the Republic, the urban environment of Rome created the *medicus* from the clay of traditional folklore, and breathed into the physician's nostrils the breath of Roman city life. That is, the *medicus* was the city's response to the waning herbal expertise of the *pater familias*. The head of

⁷² Plautus *Cistellaria* 72-3, my translation.

the Roman farm diagnosed disease and distributed medications. Over time, as the conditions of the metropolis precluded the function of the *pater familias*, the *medicus* evolved to fill the role of the drug dispenser. It would be far more accurate to call the Republican *medicus* a pharmacist than a physician.

Specific Drugs Used to Treat Urban Disease

There are a number of drugs used to treat widespread diseases in Rome that make good examples for any preliminary examination of particular medicinal plants. For example, in the fourth book of the *De Medicina*, Celsus discussed urogenital problems, including one specific illness that produced an involuntary emission of semen. The Latin phrase, “*profusio semenis*,” is a literal description of these telltale symptoms of gonorrhea, both of which mean something like a “running of the seed.”⁷³ The treatment of this disease involved the submersion of the affected parts, namely the genitals, in a bath prepared with vervain cuttings. While several Republican authors mention vervain, both Plautus and Vergil make reference to this plant in a specifically medical context. In his *Truculentus*, Plautus’ Phronesium asks for vervain to be brought to her in order to enhance the spectacle of her feigned pregnancy and delivery.⁷⁴ Vergil speaks of the prudent skill of an old Corycian farmer, who managed to grow vervain and poppy in his worthless soil.⁷⁵ Of course, poppy, a strong and reliable analgesic, was widely used and quite valuable. Since Vergil couples the two plants together, it is likely that the old man

⁷³ Celsus *De Medicina* 4.28.1.

⁷⁴ Plautus *Truculentus* 480.

⁷⁵ Vergil *Georgics* 4.131.

displayed his wisdom by growing two equally valuable commodities in such poor conditions. Based on these references, vervain appears to have been a valuable drug used for multiple reproductive concerns; it may have been a “standard issue” drug with Roman *medici*.

Vervain, or *Verbena officinalis*, grows throughout the Mediterranean and is of an unremarkable appearance. This perennial, with its small pale-lilac flowers, and oppositely arranged toothed leaves, has no distinct odor.⁷⁶ Its tissues contain a member of the chemical family known as tannins, a group of compounds which received its name from its usefulness in tanning animal hides. Tannins are widespread plant compounds that occur as mixtures of polyphenols.⁷⁷ These compounds are toxic to herbivores, and act to discourage any animals from attempting to eat plants that happen to contain them. Tannins are chemicals that help to increase a plant’s chances of survival and are therefore part of a chemical defense system. In addition to their role as herbivore repellants, tannins also help prevent fungal and bacterial growth in plants. This activity may be responsible for their efficacy in the treatment of bacterial infections such as gonorrhea and chlamydia. If Celsus’ bath of vervains contained significantly high levels of tannins, they may have been able to saturate the urethras of those patients suffering from a *profusio seminis*. If this was the case, the tannins would have had some antibacterial properties, particularly in the treatment of organisms that colonized the reproductive tract. That is, the Romans may have employed tannins as a chemical defense in the same manner as plants do. However, many questions remain unanswered. For example, would

⁷⁶ M. Grieve *A Modern Herbal* (New York, 1981): pp.831-2.

⁷⁷ For a general description of tannins see: L. Taiz and E. Zeiger (eds.) *Plant Physiology* (Sunderland, 2002): pp. 296-7.

tannins have been soluble in water, or was something else added to the bath that would have allowed these chemicals to enter solution? Also, what particular plant tissues were used in the preparation of the bath, and would these tissues contain tannins? It is tempting to see a connection between the powerful properties of the chemical defenses of vervain and the treatment of sexually transmitted diseases in humans, but there are a myriad of factors that influence the efficacy of pharmaceutical preparations—and oftentimes, such bits of the history have been entirely lost.

Many types of bites and stings were encountered by the *medicus*, but Celsus tells us that dog bites were among the most common.⁷⁸ Physicians employed several compound drug mixtures in addition to bleeding, cautery, baths and forced submersion in water. This submersion was a drastic attempt to force the rabid patient, who as the disease progressed developed an irrational fear of water, to take in enough fluids. In general, it appears that the serious nature of rabies compelled doctors to try any form of treatment available. However, Roman physicians clearly understood the lethal nature of the disease and recognized their own inadequacies. Of the drugs used to treat rabies, the majority were compound healing salves. A salve was made from any number of plant or mineral ingredients, which were added to heated wax after being thoroughly mixed together. The wax mixture was then poured over a linen bandage that had been placed on the wound, and was allowed to cool. As it hardened, the salve formed a protective barrier, and supplied the affected site with a constant supply of the drugs used in making the mixture. In this manner, the wound itself could be treated without having to administer internally the oftentimes toxic ingredients. Celsus recommended a number of

⁷⁸ Celsus, *De Medicina*. 5.27.1

salves for the treatment of bites. Several of these salves, as they are listed in book five of the *De Medicina* are provided in the following table:

Table I: Salves used to treat bites in the *De Medicina*.

Plaster #1	Plaster #2	Plaster #3	Plaster #4	Plaster #5
Copper Scales		Copper Scales	Copper Scales	
Pine Resin	Pine Resin	Pine Resin	Pine Resin	Turpentine Resin
Ammoniac Salt		Ammoniac Salt	Ammoniac Salt	
Frankincense				Frankincense
	Litharge	Litharge	Litharge	Litharge
		Verdigris	Verdigris	
			Galbanum	Galbanum
		White-Lead	White-lead	
Oil	Oil	Oil		Oil
Wax	Wax	Wax	Wax	Wax
Split Alum	Bitumen			Minium*
Vinegar				
Myrrh				

*Minium is an unknown ingredient.

As can be seen from this table, the compound salves mentioned by authors like Celsus and Scribonius are complex mixtures of numerous plant and mineral substances. The second salve in this group contains pine resin (*resina pinea*), litharge (*spumae argenti*), bitumen, olive oil and wax. The olive oil in this salve acted as a medium in which the other ingredients were successfully mixed. Roman pharmacy recognized the necessity of mixing different drugs in alcohols and lipids such as wine and olive oil. This demonstrates a rudimentary understanding of the concept of solubility, and over time this

process became a tenet of the practice, namely physicians understood that certain drugs function best when mixed with oil, water and sometimes alcohol.

Each of these salves contains beeswax as an ingredient. This wax served as a “vehicle,” or carrier substance, that covered the wound and allowed the ingredients of the salve constant access to the injured site. That is, an ancient salve worked much like a timed-release capsule, to provide the wound with a continual supply of medicine.

Bitumen can be a number of hydrocarbons and other naturally occurring chemicals found in the form of pitch, tar, asphalt and petroleum. According to Pliny, bitumen was collected in the forms of “slimes,” “earths,” “oils” and “liquids.” It was collected from many eastern localities including Judea and Babylon, and had a strong smell and a characteristic black color. In addition, Pliny claims that, among its other benefits, it stops bleeding and closes wounds.⁷⁹ For the purposes of a healing salve like the one for rabies, it is likely that physicians used bitumen in order to promote healing by sealing off the wound from the further disturbances. That is, the bitumen served as a “covering film” to ensure the protection of the diseased tissue. In addition, it would be quite difficult for any microorganisms to grow in such a medium, so it is likely that a wound covered in bitumen would tend to heal more quickly than one exposed to dangerous pathogens.

Litharge, or *spuma argenti*, is lead monoxide formed during the purification of silver, a process known as smelting. Litharge is a red or yellow powder, and could be obtained from most metal working shops in antiquity. Lead monoxide is a heavy metal and is highly toxic to microorganisms as well as humans. When inhaled or taken internally, litharge is very dangerous. However, small amounts administered dermally for short periods of time are certainly far less dangerous than other forms of exposure. In

⁷⁹ Pliny *Historia Naturalia* 35.178.

this salve, litharge functioned as a further barrier to bacterial infection of the infected area, but it is unlikely that it would have had any effect upon the rabies virus itself. Despite this consideration, it is entirely possible that the lead monoxide in this salve would have destroyed the patient's own cells surrounding the wound, which would have been infected with the rabies virus. That is, the lead monoxide could have served as a means of selectively destroying already infected tissues, and therefore may have acted as a means of limiting the spread of the disease. Of course, the greater the vascular supply to the infected region, the less this would have helped the patient.

Pine resin, (*pinea resina*), refers to the juice or fluid collected after the tree has been purposely injured. The resin itself is produced by the pine as a response to this injury and contains compounds that assist in protecting it from invaders like fungi and bacteria. Turpentine, the resin of the pine, is an oleoresin which contains, among many other chemicals, a biologically active group known as terpenes.⁸⁰ These chemicals are found in resin ducts of the trunk, twigs and needles of the pine. Here, they discourage invaders such as insects, from devouring parts of the tree.⁸¹ These terpenes may serve a similar purpose in Celsus' wound healing salve. That is, they may act to further discourage microbial development in damaged tissues.

While it is interesting to consider the powerful medicinal properties of a salve composed of bitumen, litharge, pine resin, oil and wax, we must remember that rabies was an uncontrollable infection that had a significant mortality rate in antiquity. Even today, there is no real "treatment" for rabies. Vaccination may help prevent the infection,

⁸⁰ For the composition of turpentine see: W. Evans et al. (eds.) *Trease and Evans' Pharmacognosy* (London, 1996): pp.268-9.

⁸¹ On terpenes in plants see L. Taiz and E. Zeiger (eds.) *Plant Physiology* (Sunderland, 2002): pp.287-90.

and thus decrease its prevalence in modern society, but it is a form of prophylaxis as opposed to an actual cure. As today, the best possible drugs of Republican Rome were entirely helpless against a viral infection as insidious as rabies.

Quinsy, or pharyngitis, an infection caused by streptococcal microorganisms, while not as fatal as rabies, was a real problem in crowded cities of the Republic. A particular prescription for a drugs used to treat this disease, known as *angina* to the Romans, can be found in the *Compositiones* of Scribonius Largus. In composition #67, we find the following:

“Ad anginam prodest sanguinis detracto, cucurbitarum admission ceteraque auxilia, quibus medici efficacius utuntur. Medicamenta autem simplicia quidem haec faciunt: Laser Cyrenaicum, si poterit inveneri: sin minus, Syriacum aqua dilutum, crassius per pinnam faucibus adhibitum; item euphorbium aqua dilutum.”

“Blood-letting is helpful in the case of angina, as well as the application of the cupping-glass and certain other remedies, which physicians use with a measure of success. Moreover, they also employ these simple drugs: asafoetida from Cyrene, if it can be found: if not, Syrian asafetida mixed with water and taken orally in a bolus by means of a feather; also, euphorbium mixed with water.”⁸²

While Celsus' vervain bath and compound wound salves were strictly external applications, this prescription for pharyngitis is clearly meant to be swallowed. The swelling of the throat resulting from a well developed staphylococcal infection demanded drastic measures on the part of the Roman *medicus*. Here, Scribonius suggests that the drug be passed in aqueous form through the pharynx by means of a feather, a simple and elegant solution to the problem of swollen pharyngeal glands.⁸³ He also recommends the

⁸² Scribonius *Compositiones* 67, my translation.

⁸³ Scribonius probably meant that the quill of the feather was directly inserted into the esophagus, where it acted as a conduit for fluids. This simple procedure is used extensively in modern medicine and is referred to as “intubation” whereby a tube can be inserted into the esophagus or trachea to control the flow of air or

use of asafoetida and euphorbium, in addition to the use of blood-letting and cupping. Asafoetida, or *laser*, is an incredibly foul smelling gum derived from a fennel like plant known as sylphium.⁸⁴ We do not know whether modern asafoetida is the exact equivalent of ancient *laser*, but it would be ridiculous to assume that its eastern origins prevented its introduction into Italy.⁸⁵ The oleo-gum-resin is collected from the vertical rootstalk of the plant and can be preserved as tears or a simple agglutinated mass. Asafoetida contains volatile oils, resins and gums.⁸⁶ The biochemistry of the myriad of compounds found in asafoetida is not well known. However, the volatile oil, as it is eliminated by the lungs, stimulates expectoration.⁸⁷ Certainly, a strong expectorant would have been of welcome assistance to those suffering from pharyngeal infections, especially with their predisposition to secondary lung infections. That is, an expectorant would have helped to prevent the accumulation of phlegm containing bacteria in the lungs, and thus would have promoted the health of the patient suffering from pharyngitis. Asafoetida was certainly a well known drug of the Republic, and it can be found in the works of a number of authors from this period.⁸⁸

fluids into the digestive and respiratory systems. Critically ill patients in the United States are given the option of forgoing this invasive process by requesting a DNI, or a “do not intubate” order (a legally binding request usually accompanied by a DNR, or a “do not resuscitate” order). Scribonius’ use of intubation illustrates the resourceful nature of Roman medicine.

⁸⁴ The odor of asafoetida is so overwhelming that it was later given the name Devil’s Dung. See M. Grieve *A Modern Herbal* (New York, 1981): pp.62-3. See also: Evans et al. (1996): p.290: “The oil has a particularly evil smell.”

⁸⁵ See Evans et al. (1996): p.289, and F. Fluckiger and D. Hanbury, *Pharmacographia: A History of the Principal Drugs of Vegetable Origin, Met with in Great Britain and British India* (London, 1879): pp.314-16.

⁸⁶ For the composition of asafoetida see: Evans et al.(1996): p.290, and Fluckiger (1879): pp.318-20.

⁸⁷ See P. Bradley *British Herbal Compendium* (Bournemouth, 1992): pp.24-5.

⁸⁸ For asafoetida in Republican texts see Plautus *Pseudolus* 816, *Rudens* 630, Cato *De Agri Cultura* 116.

Euphorbium, the resinous juice of the spurge, is another of Scribonius' recommended treatments for pharyngitis. One particular type of spurge, *Euphorbia officinarum*, which grows on the slopes of the Atlas mountains in Morocco, is a likely candidate for the plant spoken of in Celsus and Scribonius. This spurge is a short leafless perennial that bears a striking resemblance to numerous cacti. Its flowers are small and unremarkable, but the juice collected from its branches betrays a potency that is cleverly cloaked by its modest appearance. The collection of the spurge's toxic juice has been most aptly described by Fluckiger and Hanbury:

"Euphorbium is obtained by making incisions in the green fleshy branches of the plant. These incisions occasion an abundant exudation of milky juice which hardens by exposure to the air, encrusting the stems down which it flows; it is finally collected in the latter part of summer. So great is the acidity of the exudation that the collector is obliged to tie a cloth over his mouth and nostrils, to prevent the entrance of the irritating dust."⁸⁹

Plants of this genus (*euphorbia*) produce a number of diterpenoids responsible for an intense inflammatory response on mammalian skin.⁹⁰ Several herbals claim spurge juice acts as an emetic and cathartic, but these "purging" effects are of a peculiarly harsh nature. It is likely that spurge juice was a bit dangerous due to its toxic effects on the digestive tract, and its value for the treatment of pharyngitis is somewhat questionable. It is an excellent example of the difficult distinction between drugs and poisons in antiquity.

Conclusion

The crowded conditions of city life in Rome created an environment that welcomed the spread of infectious diseases and promoted regular cycles of endemic and

⁸⁹ Fluckiger et al. (1879): p.559.

⁹⁰ Evans et al. (1996): p.38.

epidemic diseases. Roman history of the Republic is filled with descriptions of unbearable plagues, and the attempts of a burgeoning society to deal with the effects and after-effects of such destructive phenomena. The profession of the urban *medicus* adapted to the conditions of the urban environment in an attempt to treat a myriad of infectious diseases. Like their rural counterparts, Roman urban doctors primarily relied on the use of drugs as the mainstay of their medical practices. Latin speaking Italic Romans had no need for the clever physiological musings of their Greek neighbors on the mainland or in Southern Italy and Sicily. Roman medicine was devastatingly practical, and demanded a certain measure of success that was readily granted by available botanical remedies. The art of the Republican physician was firmly rooted in traditional practices that first developed on the farm, as Republican society attempted to adapt to the influx of its citizens into crowded urban centers. The use of botanical remedies and the knowledge of age-old curatives are preserved throughout the medical and even non-medical literature of the Republic, and left their marks on every genre. Roman physicians were shaped by the adverse circumstances of city life, and as Rome prospered and expanded, the demand for pharmaceutical answers to medical questions was met by doctors who practiced a uniquely Roman brand of medicine.

Chapter #3: Poisonous Drugs

Introduction

It takes no stretch of the imagination to understand the significance of war and disease in Roman society; it is quite reasonable to assume that much of the death rate in antiquity can be attributed to military campaigns and frequent plagues. Malnutrition, accidents and work related trauma may have been equally as deadly, but we do not often think of murder as a significant cause of death in the Greco-Roman world. However, intentional homicide by means of poisoning may have been much more common than previously acknowledged.¹ The fear of poisoning is present in all genres of early Latin literature, and often manifests itself as a cause of noteworthy social anxiety in unexpected sources. For example, while strolling down the Via Sacra, Horace tells us of an encounter he had with a shameless self-promoting nuisance, who persistently badgered the poet in order to secure an introduction to his patron Maecenas.² Horace, playfully mourning his fate, recounts a prophetic utterance concerning his ultimate demise: the prediction reveals that he will meet his doom at the hands of a babbler. The soothsayer's

¹ D. Kaufman, "Poisons and Poisoning Among the Romans" *Classical Philology* 27 (1933): p.156, relates the difficulties of making any concrete statements about death rates in antiquity, but admits that murder by poison was much more common then than today

² Horace *Satires* 1.9. The prophecy is, of course, in jest, but the causes of death listed must be commonplace for it to make sense. The prophecy is humorous because it is unlikely that someone could perish from being talked to death, while so many are killed by war, disease and poison. For the concept of being killed by a babbler to be humorous, the reader must be persuaded that war, disease and poisoning are indeed commonplace causes of death in Rome. That is, anticipated forms of death are directly contrasted with the unexpected "death by loquaciousness."

inspired words are clearly a bit of poetic invention, and are meant to heighten the poet's genuine annoyance with the talkative parasite, but they reveal much about death in Rome:

**“Hunc neque dira venena nec hosticus auferet ensis
nec laterum dolor aut tussis nec tarda podagra;
garrulous hunc quando consumet cumque; loquaces,
si sapiat, vitet, simul atque adoleverit aetas.”**

**“Neither fearful poisons, nor the sword of the enemy,
Nor pleurisy, pneumonia, or crippling gout will end his life;
For a talkative man will use him up; If he is wise,
As he accumulates years, he will shun the garrulous.”³**

Horace is worried he will meet death at the hands of a babbler, and will, therefore, escape the commonly accepted fates of most men: war, disease and poisoning.

Although it may seem odd to consider poisoning a common way to die, the same sentiment is expressed in identical terms by Lucretius, another first century Roman poet. While pondering the differences between ancient humans and Roman society of his day, Lucretius discusses the topic of moral decline, and illustrates changes in moral attitudes by examining different approaches to the act of poisoning. Men of old, he asserts, poisoned themselves accidentally, while the present generation uses poisons with malice aforethought:

**“Illi imprudentes ipsi sibi saepe venenum
vergebant, nunc se perdunt sollertius ipsi.”**

**In those days men often unwillingly poured poisons for themselves,
Now they make away with themselves more skillfully.”⁴**

³ Horace *Satires* 1.9: 31-4. My translation. *Tussis* is simply “cough” but I have rendered it “pneumonia” to emphasize that a persistent and possibly dangerous cough was understood. Pleurisy may indicate a serious life-threatening condition, while gout can develop fatal complications.

⁴ Lucretius *De Rerum Natura* 5:1009-10. Lucretius is accusing his contemporaries of using poisons to do away with each other. His critique of modern man is grounded in the belief that the skillful use of poisons reflected a morally bankrupt individual. The issue here is distinctly moral, but lends support to the idea

In his opinion, malicious intent grounded in a skillful knowledge of poisons distinguishes the immoral present from the moral past. In another excerpt from the *De Rerum Natura* he presents additional evidence for the common-place nature of poisoning, and expresses sentiments similar to those of Horace:

**“Corpus ut exanimum siquod procul ipse iacere
conspicias hominis, fit ut omnis dicere causas
conveniat leti, dicatur ut illius una:
nam neque eum ferro nec frigore vincere possis
interiisse neque a morbo neque forte veneno,
verum aliquid genere esse ex hoc quod contigit ei
scimus.”**

**“...as when you see far off
a corpse stretched on the ground, you guess each cause
of death, so that you’ll hit upon the truth.
For you can’t prove that he died by cold, or the sword,
or by disease or poison even—still
that he was caught by something of this sort
we know.”⁵**

Murder by poisoning seems to have been just as prevalent as death from exposure, battle wounds and disease.⁶

While both Horace and Lucretius mention war, disease and poisoning as common causes of death in Rome, several other authors specifically mention poisoning as a threat to particular social classes. Catullus, refusing to extend a loan to a certain Furius, mocks the poor man’s request by insisting that his impoverishment is actually a blessing. Why?

that poisoning was widespread in the Republic. The contrast of *inprudentes* with *sollertius* seems to indicate that the accidental and intentional deaths are achieved by the same means, namely poison.

⁵ Lucretius *De Rerum Natura* 6:705-11, translated by Anthony Esolen.

⁶ Determining the cause of death may have been a rhetorical exercise in Roman antiquity: see Don and Peta Fowler, *Lucretius On the Nature of the Universe* (Oxford, 1997). p.270.

According to Catullus, wealthy Romans lived in constant fear of fires, collapsing buildings, and the dreaded hand of the poisoner.⁷ From the tone of this poem, it appears that poisoning was a tool used more commonly against the aristocracy rather than the poor urban masses. From such evidence it appears that poisoning was a viable means of murder in Rome, and that the wealthy were particularly at risk for being targeted by poison-brewing assassins because of their riches and power.

Furthermore, aristocratic fears of poisoning manifest themselves repeatedly in our surviving texts, and despite the fact that such fears may have been entirely justified they are often accompanied by distinctly paranoid and irrational sentiments. Even Horace was not above hurling accusations of poison-making and pharmaceutical mischief-making. In one such instance, he makes allegations of this sort against an unknown man whose only apparent crime was planting a tree on his estate that one day accidentally fell on the poet.⁸ Horace accuses him of being a parricide, a murderer of guests, and a poisoner. He says that the villain probably practiced Chalcian arts. Such slanders are illuminating reflections of aristocratic anxiety, and may be an accurate representation of the legitimate concerns and phobias of the Roman aristocracy.

Whether such concerns were exclusive to particular individuals or segments of the population, they were certainly a popular cause for anxiety in much of Roman literature. There is a wealth of evidence in Roman literature through the age of Augustus concerning various attitudes to poisons, poison-making, and conspiracies to commit murder. The worrisome art of brewing poisons plagued early Roman society in many

⁷ Catullus *Carmina* 23.9-10.

⁸ Horace *Odes* 2.13. In this poem, Horace complains about the man who grew the tree that almost fell on his head.

different ways and left an indelible mark upon the minds of many Latin authors. This chapter will focus on a number of specific references to poisoning found in Latin literature from the earliest surviving fragments of legal prose to the poetry of the age of Augustus. The impact of the use of deadly drugs on the history of the Republic will be of particular importance, but more importantly, I would like to consider the pervasive use of poisons as a convenient means of murder and the atmosphere of fear generated as a result. From these written sources, I hope to reconstruct a vivid depiction of traditional Roman views on the use of poisons by focusing on dramatic topics like the moral stigma of poison-making, suicide, political conspiracies, and the prosecution of crimes of poisoning. In doing this, I hope to provide a better picture of the common nature of poisons in antiquity and the relative ease with which one could obtain, prepare and use them for nefarious ends.

Murderers and Magicians: The Dark Reputation of the Poison-Maker

Roman interest in drugs can best be described as an ecstatic schizophrenia; this may be the result of the dual nature of pharmaceuticals, or the antithetical capacities of drugs to restore life and destroy it. The *veneficus* could be described as both a drug-maker and a magician. His craft provided him with the means to murder from afar, with little fear of detection. The right drug, when slipped into a harmless drink, could bring instant death to its intended victim, while leaving behind few traces of the murderer's identity. Drugs provided a valuable anonymity, which was clearly unavailable to those whose chosen weapon was the dagger or sword. Simple plants and garden weeds became potentially lethal weapons in the hands of those who possessed a good understanding of

the pharmacist's art. Despite their effectiveness, using drugs or poisons to dispatch one's enemy was viewed as an act of cowardice because it required the use of trickery rather than brute force. The assassin who used poison was believed to employ craft (*dolus*) instead of manly strength (*vis*).⁹ Such craftiness, in Greek and Roman minds, was the mark of an ignoble and base person.¹⁰ Much like Homer's archer Paris, the poisoner struck from a distance in order to avoid direct confrontation, and thereby demonstrated his lack of courage. The moral stigma connected with poisoning even applied to the Roman army, which was clearly experienced in the difficulties inherent in fighting foes that employed poisonous arrows and javelins.¹¹ While the Parthians and Cydonians were said to have used poisoned weapons that were beyond cure (*immedicabile*), Roman soldiers were not typically trained in the use of such agents of destruction.¹² Roman

⁹ Livy *Ab Urbe Condita* 39.8.7. Here, Livy refers to the cowardice of the mass conspiracies of the 180's, in which extensive investigations into poisoning were carried out. These conspiracies will be discussed later, but it is obvious from Livy's presentation of the moral decline following the popularity of the mystery cults that poisoning was perceived culturally as a tool of immoral people.

¹⁰ As seen in Sallust *Bellum Catilinae* 11.3. Here he says that the wicked man vies for power by means of trickery (*dolus*). In this passage he further claims that avarice (*avaritia*) is filled with poison that renders the manly body effeminate. Therefore, craft and deception were the tools whereby the wicked man was able to procure riches, but the use of these tools caused him to lose his manly characteristics like the desire for a direct confrontation in a contest or struggle. The classical distinction between masculine force and feminizing deception further contributes to our understanding of the direct association of the poisoner's craft with women. Deception was understood to be a characteristic of a witch or an evil step-mother (*noverca*). See also D. Kaufman pp.157-8.

¹¹ The poisoned weapon was well known to the Romans. The earliest appearance of a poisoned weapon seems to be the arrow poison found in the plays of Caecilius (Fragment #49), who lived in the late 3rd and early 2nd centuries.

¹² Virgil *Aeneid* 12:856-9. Virgil speaks of the use of poisoned weapons elsewhere: In *Aeneid* 9.771-3, Amycus is said to be the most skilled in preparing poisoned weapons, while in 10.140-2 Ismarus also employs them. It is interesting to note that Vergil's characters on both sides of the conflict use poison. It is difficult to reconcile the use of poisons among the allies of Aeneas, who should be morally above such things, but it may also be the case that the Romans believed warriors from older generations employed such weapons without any moral discrimination.

aversions to the use of poisons in combat can also be seen in Horace's *Odes*, where the poet boldly proclaims that the just man has no need of poisoned arrows.¹³

Cicero, a man intimately familiar with the legal ramifications of poison-making, places dagger-wielding murderers, thieves and poisoners in the same moral category.¹⁴

As a prominent orator and statesman, he believed that poisons, the assassin's dagger and forged wills comprised a wicked triumvirate that was directly responsible for the ills of Roman society.¹⁵ He saw the use of poisons as a means to promote the excessive accumulation of wealth and power, a thing which could lead to the establishment of tyranny. Much to his chagrin, those who conspired against the authority of the Senate, clearly understood the benefits of carrying daggers and raising poisonous plants.¹⁶

Cicero's apprehensions are a reflection of his sensitivity to the changing tide of Roman government in the 1st century. In order to contrast the moral decline of his age with the superiority of preceding generations, he offers the example of Pyrrhus of Epirus.

Although he was clearly an enemy of the Roman people, the Senate refused to entertain the offer of a certain deserter, who promised to poison king Pyrrhus if the Senate would offer its support. So great was their dislike for such things that they refused the offer and even executed the would-be assassin.¹⁷

¹³ Horace *Odes* 1:22.1-4. Apparently, the poisoned arrows were used by the Moors. According to Horace, the virtuous man has no need for such things.

¹⁴ Cicero *De Officiis*. Cases of poisoning and murder are often mentioned together but they are always distinguished on the basis of the nature of the weapon. Poisoners use drugs (*venena*), while murderers use daggers or swords. The contrast is always between the *Quaestio veneficiis*, and the *quaestio sicariis*, and the two crimes were not considered identical or lumped into one category, as the language clearly reflects.

¹⁵ Cicero *De Officiis* 3.36.

¹⁶ Cicero *In Catilinam* 2.23.

¹⁷ Cicero *De Officiis* 1.40.

For Livy, this same story became a means of illustrating the burdensome degeneration of moral values and proper ancient customs in Rome. In his version, Hannibal, when surrounded by the soldiers of King Prusias, provided a brief editorial on the changing values of the Roman people by contrasting his present situation with that of Pyrrhus. His final soliloquy is brief but pointed:

“Mores quidem populi Romani quantum mutaverint, vel hic dies argumento erit. Horum patres Pyrrho regi, hosti armato, exercitum in Italia habenti ut a veneno caveret praedixerunt: hi legatum consularem, qui auctor esset Prusiae per scelus occidendi hospitis miserunt.”

“This day will demonstrate how great has been the change in Roman morals. The fathers of these people warned their own enemy, king Pyrrhus—who had an army in Italy—that he should be on guard against poisoning: but they themselves have sent a former consul to incite Prusias to commit the crime of murdering his guest.”¹⁸

In the hands of Livy, Pyrrhus, an undeniable ‘enemy of the state,’ became the mouthpiece for the author’s concerns about the changing values of the Roman people.¹⁹ If we are to believe that Hannibal ever said such a thing, it is striking to consider that even Rome’s adversaries could see its moral standards rapidly changing. What is most relevant here is the fact that Livy judges Roman morality on the basis of his society’s views on poisoning, an act that was obviously a significant aspect of Republican life.

¹⁸ Livy *Ab Urbe Condita* 39.51.10-11, my translation.

¹⁹ See P.G. Walsh, *Livy Book XXXIX (187-183 B.C.)* (Warminster, 1994): pp.172: “Livy himself may have inserted this criticism of Roman vindictiveness. Though he rarely utters anti-Roman sentiments directly, he often attributes them to historical figures...In this instance, the remark accords with his general picture of initial moral decline in the 180’s, as evidenced by the behavior of Manlius Volso’s returning troops and by the Bacchanalia.” There is a clear moral stigma attached to the use of poisons to carry out murder. Such blatant moral disgust was felt by the Romans because of the prevalent fears of poisoning within Roman society itself. Senators, city officials and prominent citizens clearly felt the omnipresent influence of the poison-brewing assassin, who could easily end long and distinguished careers with his pharmaceutical weapons.

Poisoning held so great a moral stigma for the Romans that their language itself came to reflect a visceral disgust for those who dabbled in the art of making lethal drugs. By the late 3rd century B.C., the word for “poison-maker,” *veneficus*, began to be used for a scoundrel or reprobate. The prefixes *tri-* and *ter-* were added to *veneficus* in order to emphasize the thoroughly irredeemable nature of such a wretch.²⁰ The connection of *triveneficus* with “poisoner” or “poison-maker” seems to have been lost entirely. Plautus uses both *triveneficus* and *terveneficus* to denote any crafty villain with a propensity for committing crimes by means of trickery or stealth. In the *Aulularia*, Euclio, the old miser, uses this term of abuse when he curses his old slave Staphyla.²¹ He is afraid that the old woman, who he claims has eyes in the back of her head, will sneak off with his hidden gold.²² It is clear from the context that Euclio has no fear of poisoning, but views the woman as a clever trickster. In a similar situation, Nicobulus, in the *Bacchides*, accuses Chrysalus of trying to take his money by means of trickery. He claims that Chrysalus will steal his gold by using some sort of scheme (*per sycophantiam*).²³ Among other things, the old man calls him a scoundrel (*terveneficus*) and says he is a source of evil crimes (*scelerum caput*).²⁴ Much like the reference in the *Aulularia*, Plautus uses *terveneficus* here as a means of denoting a treacherous person who commits crimes in a clandestine manner. Again, there is no connection with poisoning in this section of the

²⁰ The Oxford Latin Dictionary defines *trivenefica* as a “treble-dyed witch” (p.1978) and *terveneficus* as a “triple-dyed poisoner” or a “thorough villain” (p.1930).

²¹ Plautus *Aulularia* 86.

²² He literally says she has eyes in the back of her head: “Quae in occipitio quoque habet oculos pessima,” Plautus *Aulularia* 64. Euclio’s fear of the old woman is perhaps unfounded, but it is obvious that he uses the term *tervenefica* as an insult because he suspects that she is crafty.

²³ Plautus *Bacchides* 806.

²⁴ Plautus *Bacchides* 813; 829.

Bacchides, so it is clear that the word has come to mean something slightly different than it originally did. It is also important to note that Plautus uses the simple *veneficus* in the context of poisons, as well as general insults. For example, the cook, in the *Pseudolus*, is accused of being a poisoner, *veneficus*, but only after he specifically mentions the use of drugs (*medicamenta*) and poisons (*venena*).²⁵ That is, a *veneficus* was a scoundrel who may or may not have employed poisons, whereas a *triveneficus* was strictly a crafty criminal with no apparent connection to poisons.²⁶ The concept of “poisoner” carried so much of a moral stigma that it came to be used as a general slander for any clever criminal.²⁷

Plautus’ use of *terveneficus* as a convenient term of slander in his comedies may be a bit deceiving. He may have used the term lightly, but it was by no means used as just a trivial insult; the *veneficus*, or poisoner, was a genuinely frightful individual for the Romans. Poisonous drugs gave their masters the power to strike from a distance, and this ability, in turn, generated an environment of fear in which the *veneficus*, or brewer-of-poisons, was assumed to have powers and abilities far beyond those of simple mortals. For example, Republican literature frequently presents the figure of the Thessalian witch, a mysterious drug-mixing magician or sorceress, who wielded the power to influence the

²⁵ Plautus *Pseudolus* 868-72.

²⁶ For other uses of *veneficus* as an insult see: *Mostellaria* 218; *Persa* 279; *Rudens* 987, 1112; *Truculentus* 762.

²⁷ The use of poisons was fearful enough for Virgil to speak in his fourth *Eclogue* of a new age in which poisonous plants would no longer exist. Virgil *Eclogues* 4.23. The *Oxford Latin Dictionary* defines *terveneficus* as a “thorough villain” (p.1930).

gods and even draw down the moon.²⁸ The stylistic portrayal of such a character was probably inspired by the great cloud of ignorance that overshadowed the common man's understanding of pharmaceuticals and his healthy mistrust for the lethal potential of drugs and drug-makers. This can be seen in Horace's assertion that Iolcos, or Thessaly, the homeland of magicians and witches alike, was a land full of powerful botanicals.²⁹ It is likely that the association of this region with magic or witchcraft was merely an acknowledgement of the vast number of poisonous plants and their use by local Thessalians.³⁰ Poisonous plants, like any other species of flora or fauna, have adapted to growing in specific climates. Thessaly may have been the geographical nursery of a large number of poisonous botanicals, or its inhabitants may have learned to exploit its pharmaceutical resources better than other peoples, but in either case, it had a solid reputation for producing both poisons and poison makers.

Ovid's Medea is a wonderful example of the typical Thessalian witch.³¹ She exhibits vices and virtues unique to the melding of pharmacist and sorcerer in Roman

²⁸ Horace *Carmina* 1.27. Here the Thessalian magician uses drugs to assist someone in need. Usually the character of the Thessalian witch acts to bring harm or force someone to act against their will. See also Plautus *Amphitruo* 1042; Ovid *Amores* 3.7.26.

²⁹ Horace *Epodes* 5.21.

³⁰ Strabo claims that the stories concerning the powers of magicians and witches and their drugs are part fact and part fiction. He seems genuinely convinced that the drug lore connected with these mystical figures is partly genuine. See Strabo *Geographia* 1.2.10; 1.2.30.

³¹ Strabo believed Medea was an historical figure (1.2.39). If this is true—and perhaps nobody believed Strabo at all—it is likely that she was originally a Thessalian known for her understanding of drugs and the powerful poisons that grew in her native land. She may have even been associated with medicine. Ovid creates a colorful image of another witch in the fourth book of his *Metamorphoses* (4.499), where he presents the fury Tisiphone who mixes deadly poisons. The line between myth and reality is blurred by his addition of real poisons—hemlock for example—to the mixture. Horace expands on the image of the Thessalian witch by mentioning the *magus* from Thessaly who acts as a physician (*Odes* 1.27). This passage may help clarify the unique association of this region with witches and poisoning. Perhaps the *magus* from Thessaly practiced a form of medicine that was indistinguishable from magic or witchcraft. That is, Thessalian magi could very well have been more like a shaman than a physician or witch.

literature.³² Medea is essentially the literary manifestation of a distinctly Roman apprehension for the unknown and the unpredictable power of drugs. She is the offspring of the psychosocial angst seen in the works of poets, historians and medical authors alike. In the person of Medea, we see the uncontrollable power of the drug-maker elevated to the status of a divine personage. Ovid's description of her strange resurrection ceremony beautifully illustrates the association between magic and pharmacy, while preserving the inextricable nature of the arts of medicine and magic.

**“...passis Medea capillis
 bacchantum ritu flagrantis circuit aras
 multifidasque faces in fossa sanguinis atra
 tinguit et infectas geminis accendit in aris
 terque senem flamma, ter aqua, ter sulphure lustrat.
 Interea validum posito medicamen aeno
 fervet et exultat spumisque tumentibus albet.
 Illic Haemonia radices valle resectas
 seminaque floresque et sucos incoquit atros;
 ...at quacumque cavo spumas eiecit aeno
 ignis et in terram guttae cecidere calentes,
 vernat humus, floresque et mollia pabula surgunt.
 Quae simul ac vidit, stricto Medea recludit
 ense senis iugulum veterumque exire cruorem
 passa replete sucis...
 pulsa fugit macies, abeunt pallorque situsque,
 adiectoque cavae suppleantur corpore rugae,
 membraque luxuriant.”**

“Medea, with streaming hair after the fashion of the Bacchantes, moved round the blazing altars, and dipped many cleft sticks in the dark pools of blood, she lit the gory sticks at the altar flames. Thrice she purified the old man with fire, thrice with water, thrice with sulphur. Meanwhile the strong potion (*medicamen*) in the bronze pot is boiling, leaping and frothing white with the swelling foam. In this pot she boils roots cut in a Thessalian vale, together with seeds, flowers, and black juices...And wherever the froth bubbled over from the hollow pot, and the hot drops fell upon the ground, the earth grew green and flowers and soft grass sprang up. When she saw this, Medea unsheathed her knife and cut the old man's throat;

³² This reference is from Latin literature, but it is clear that Ovid's model was based on previously established Greek literary figures such as Medea and Circe.

then, letting the old blood all run out, she filled his veins with her brew...his leanness vanished, away went the pallor and the look of neglect, the deep wrinkles were filled out with new flesh, his limbs had the strength of youth.”³³

Medea's practices, as represented by Ovid, are clearly influenced by contemporary medical practices, and contain readily recognizable elements of contemporary medicine and pharmacy. Her use of plant juices (*sucos*), seeds (*semina*) and flowers (*flores*) to create a compound drug mixture is no different from Imperial drug prescriptions found in authors like Celsus and Scribonius.³⁴ Drug sellers and doctors in Rome utilize many parts of plants, shrubs and trees, including roots, flowers, seeds and fluid preparations to create their drug mixtures. In addition, Medea's use of anesthetics and the “cleansing” drug sulfur are elements of pharmacy which are indistinguishable from similar references found in medical sources of the early Empire.³⁵ That is, Medea's powers are clearly an amplification of the pharmacist's art, and are augmented as a result of the ominous fear of poisons in Roman society. Medea's drug concoction is even referred to as a “*medicamen*.”³⁶ This use of medical language further shortens the distance between pharmacy and magic.³⁷ For the distinction between witch and drug-maker is strictly a modern one. That is, *veneficus* can denote “one who makes drugs/poisons,” or simply a

³³ Ovid *Metamorphoses* 7.257-65; 282-7; 290-2, translated by F. J. Miller.

³⁴ For example see: Celsus *De Medicina* 4.1.1, 5.4.1, 5.6.2, 6.6.5; Scribonius *Compositiones* 52.6, 70.2, 85.2. There are many other examples of the use of specific plant parts in the medical literature of the early Empire.

³⁵ Scribonius *Compositiones* 95.2, 250.1.

³⁶ The *Oxford Latin Dictionary* defines *medicamen* as “a substance administered or applied to produce specific effects upon the body, medicament, drug; a curative medicament, a remedy; a cosmetic; a substance used to treat seeds or plants, also to preserve or flavor food or drink; a dye” (p.1088).

³⁷ Ovid further blurs the distinction between a “poison brewer” and a “magician” in *Metamorphoses* 7.315 and 14.364.

“witch.”³⁸ Similarly, *veneficium*, is defined both as the art of concocting drugs and the practice of witchcraft, but this distinction is made purely for the sake of a modern audience that would distinguish between such practices. Drugs, poisons, magic and power were each integral aspects of the art of *veneficium* as it was practiced by the *veneficus*. Even Plautus’ cook in the *Pseudolus*, who was neither a witch nor a drug-maker, was accused of being a *veneficus*.³⁹ The charge is one of being a poison-maker with the intent to commit murder. A concocter of poisons, whether he or she was a witch, cook or doctor, was an individual who understood and employed the dark and fearful knowledge of potentially lethal drugs.

The tools of the *veneficus* that enabled him to carry out his scandalous designs were *venena* or “poisons.” These drugs were distinguished from *medicamenta*, or healing drugs, on the basis of their intended use rather than their potential to be lethal. *Venena* do not represent a specific category of drugs, in the same way that modern pharmaceuticals are classified as narcotics, antibiotics or anesthetics. On the contrary, Roman pharmaceuticals as a whole defied precise classification, and were never considered to be exclusively *medicamenta* or *venena*; it was well known that many botanicals could heal and kill at the same time. *Venena* and *medicamenta* are not so easily translated as merely “poisons” and “drugs.” While *venena* are generally bad or hurtful, *medicamenta* can be either helpful or deadly, depending on any adjectives that may be modifying the noun. Horstmanshoff, in his recent article *Ancient Medicine Between Hope and Fear: Medicament, magic and poison in the Roman Empire*, points out the difficulty in arriving

³⁸ F. Graf, *Magic in the Ancient World*. (1997): p.46.

³⁹ Plautus *Pseudolus* 869.

at precise definitions of words related to “drugs” or “medicines.” He says: “*Venenum* is such a *vox media* that the Roman jurists demand more precision...’the user of the word *venenum* must add whether it is beneficial or harmful” (p. 44). However, this problem is oftentimes unnecessarily emphasized due to the total ambiguity of the Greek *pharmakon*, which can either be a “drug” or a “medicine.” We must remember that *venenum* and *medicamentum* are two distinct words, and should be translated as such. Those who attempt to muddy the waters of Latin medical terminology on the basis of Greek terms may be making the situation appear more ambiguous than it really is.⁴⁰ Very few drugs were employed solely as poisons, and many widely used “medicines” were well known to be deadly when used in large doses or for extended periods of time. Pliny writes extensively on specific qualities of traditional poisons and antidotes. Although he relies heavily on Hellenistic Greek sources, his description of poisonous botanicals contains many native Roman pharmaceuticals found in such authors as Cato and Varro. Pliny’s broad understanding of natural science enabled him to discuss a wide variety of poisonous substances including common and exotic animals and plants, as well as a large number of chemicals encountered in trades like tanning and the metal working. Pliny considers a variety of uses for poisons, and does not hesitate to mention a number of suicides and murders among prominent aristocratic families.⁴¹ In addition, he harshly

⁴⁰ For example, see: S. Currie, “Poisonous Women in Roman Culture,” in *Parchments of Gender: Deciphering the Bodies of Antiquity*. M. Wyke (ed.). (Oxford, 1998): p. 154. David Kaufman also discusses these terms: “The word *venenum* is derived...from *Venus* and means a love potion. It has three meanings from actual usage: remedy, poison, and magic drug or abortive. The exact meaning is frequently determined by the qualifying adjective *bonum* or *malum*. *Veneficium* means poisoning and practicing sorcery, while *veneficus* or *venefica* was applied to a poisoner or maker of drugs.” See: D. Kaufman, “Poisons and Poisoning Among the Romans” *Classical Philology* 27 (1933): p.156.

⁴¹ Lucius Domitius commits suicide with poison, *Nat. Hist.* 7.186; Marcus Lollius commits suicide with poison, 9.118; Gnaeus Piso and Germanicus mentioned, *Nat. Hist.* 11.187; Even Cleopatra is said to have been involved with a not-so-serious attempt to poison Antony, *Nat. Hist.* 21.12.

criticizes physicians for trying to use poisonous substances in practicing their art.⁴² Pliny discusses not only man-made prescriptions, but also the potent venoms of poisonous creatures. The myriad of snakes, sea creatures and insects mentioned by Pliny were certainly well known during the Republic. Toxins from many poisonous animals were actively harvested for use in medicine and the production of antidotes.⁴³ Therefore, it may have been exceedingly difficult for the average Roman, unskilled in pharmacy, to distinguish between the drug-making physician and the dreaded poison-brewer, but the moral stigma attached to the use of poisons doubtlessly clouded this distinction and may have given pharmacy a bad reputation. The moral disgust felt for those involved in poisoning resonates through much of early Roman literature, and forces us to view the craft of pharmacy—as the Romans did—in the light of its potentially murderous capacities.

Poisons and Suicide

The Romans may have considered murder-by-poison to be a dreadfully immoral act, but suicide was another issue entirely.⁴⁴ From the most innocent maiden to the most distinguished senator, suicide by poison seems to have been an acceptable means of ending one's life while preserving personal dignity and virtue. Even sworn enemies of the Roman Republic were able to maintain a bit of their own honor by taking their own lives. Roman literature, in many instances, presents the nobility of killing oneself with

⁴² Pliny *Natural History* 13.125

⁴³ Mithridates IV of Pontus was widely known to collect poisons for use in his concoctions of antidotes (*Natural History* 23.149).

⁴⁴ For a brief discussion of suicide by poisoning see Kaufman (1933): pp.160-1.

poison in a manner that is meant to inspire awe and respect. In myths and histories alike, the Romans seemed to lack our modern distaste for suicide, and often present it in heroic terms.

Despite this, suicide by poisoning may or may not have been entirely acceptable in Roman society. In order to clear up any confusion about this particular type of suicide, we must ask about the exact details of this type of death. Also, it is important to consider the effectiveness of using drugs to commit suicide; it is highly unlikely that poisons would remain a serious option for the would-be self-murderer if the death they caused was either lingering or painfully protracted. The deaths of Phyllis, Cleopatra, and the mass suicide of roughly 30 Capuan senators in 211 B.C. These will serve as our guides in understanding the act of self-poisoning and its acceptance in early Roman society.⁴⁵

Ovid's *Heroides* presents what appears to be one of the oldest and most complete suicide notes of antiquity.⁴⁶ The story, like that of other famous mythic lovers, was probably well known to Ovid's Roman audience.⁴⁷ Phyllis, abandoned by her lover Demophoon, composes a letter in which she complains bitterly of her predicament and describes her intended suicide. She plans to end her life by jumping into sea, and hopes that her lifeless body will wash ashore at the feet of the man who caused her demise. In

⁴⁵ Only one of these examples of suicide by poisoning concerns a Roman killing themselves, the others concern a Greek myth and an Egyptian queen. However, they are all examined and interpreted by Roman/Latin literary sources, so they reflect Roman cultural views.

⁴⁶ Ovid *Heroides* 2 131-48. According to Phyllis, Demophoon promised her marriage but sailed off and never returned. The tone of the letter is highly dramatic and may be exaggerated in order to emphasize the passion of the betrayed lover.

⁴⁷ This particular myth is difficult to assess because very little of its earliest traditions survive: "To the best of our meager knowledge, the only pre-Roman literary treatment of the myth in Greek was Callimachus', of which all of four words survive. To be sure there is no solid evidence that Callimachus told the tale at any great length, though the hypothesis seems likely" (H. Jacobson, *Ovid's Heroides* (Princeton, 1974): pp.58-9).

an attempt to blame her lover directly, she even instructs him to place the following dramatic inscription on her tomb:

**“Phyllida Demophoon leto dedit hospes amantem;
ille necis causam praebuilt, ipsa manum.”**

**“Demophoon, a guest of his lover Phyllis, gave her over to the grave;
He offered her a reason to die, she provided the means.”⁴⁸**

Phyllis holds Demophoon completely responsible for her death, and writes that she is killing herself because of unreciprocated love.⁴⁹ There is no question of his guilt here, and it is obvious from the letter that she was undeserving of such a fate. Therefore, her suicide appears thoroughly heroic, and should be considered an adequate means of preserving her own honor. Demophoon, on the other hand, is directly responsible for his lover's death, and is presented in an entirely unsympathetic manner. Of course, the letter is written from Phyllis' perspective, but it is fair to say that she is quite guiltless.⁵⁰ She chooses drowning as a means of destroying herself but mentions a number of viable alternatives:

**“Saepe venenorum sitis est mihi; saepe cruenta
traiectam gladio morte perire iuvat.
Colla quoque, infidis quia se nectenda lacertis
prae buerunt, laqueis implicuisse iuvat.”**

⁴⁸ Ovid *Heroides* 2.147-8, my translation. It is important to note the effort to lay blame for the death of Phyllis at the feet of Demophoon.

⁴⁹ Even the structure itself of the poem enhances our sympathy for Phyllis and dislike for the guilty Demophoon: “Thus, the poem is punctuated at three critical points, beginning, precise midpoint, and end by epigraphs which accentuate the twofold relationship (guest-host, lovers) and the betrayal perpetuated by Demophoon.” Jacobson (1974): p.73.

⁵⁰ Line 143 “Stat nece matura tenerum pensare pudorem” seems to indicate that she bears some guilt in being deceived by Demophoon.

**"Often do I thirst for poison; often am I pleased to consider
dying a gory blood-stained death, pierced by a sword.
I am happy to entwine my neck in the noose,
since it bound itself to your unfaithful arms."⁵¹**

Even though she is a figure from myth, Phyllis' desperate situation may indirectly reflect Roman social attitudes toward the act of suicide by poisoning.⁵² We would never expect Ovid to show undue sympathy for any particular behavior that was strictly prohibited by his contemporaries. Like any poet of his generation, he could not stand outside of the culture in which he was fully submerged, nor could he compose his poetry in a social vacuum. His detailed description of the types of death Phyllis ponders probably reflects the options available to citizens of the Late Roman Republic. Bleeding to death by opening the veins, and strangulation by hanging are certainly quite "classical" ways to kill oneself, but Phyllis seems to present poisoning as an equally feasible means of suicide.⁵³ Its prominent position, as the first discussed method, may indicate that it was preferred to either of the other two alternatives, but this is uncertain.

Phyllis may have chosen a form of suicide better suited to her desire for sympathy and revenge, but Cleopatra, awaiting captivity and shame at the hands of her enemy, went

⁵¹ Ovid *Heroides* 2:139-42, my translation. Three obvious means of suicide are mentioned here: poison, the sword and hanging. The sword is far too masculine, while poison and hanging would prevent her body from washing ashore at his feet. Drowning is the logical choice. Peter Knox says: "Poison, the sword, and the noose (in rising tricolon) would be welcome forms of death. The language is graphic and luxuriant: Phyllis craves poison, and the thought of a bloody death is pleasing; while she lingers expansively on the embrace of the noose," P. Knox (ed.). *Heroides: Select Epistles* (Cambridge, 1995): p.138.

⁵² It is impossible to say whether the original myth of Phyllis contained the specific ways she proposes to kill herself because so little of this particular mythic tradition survives.

⁵³ Whether her contemplation of suicide by poison was native to Roman culture, or a reflection of Greek values contained in the myth, it is obvious that Ovid believed his audience would be able to understand her choices.

right for the lethal poison. Horace celebrated the death of the queen in his *Odes*, but added to the flames of her funeral pyre a heaping portion of poetic incense scented with honor and manliness.⁵⁴ In this particular ode Horace presents Cleopatra as insane (*dementes*), drunk with fortune (*fortunaque dulci ebria*), and full of fury, but within a single line he quickly changes his tone from stern condemnation to genuine praise:⁵⁵

**“.....Quae generosius
perire quaerens nec muliebriter
expavit ensem nec latentes
classe cita reparavit oras.
Ausa et iacentem visere regiam
vultu sereno, fortis et asperas
tractare serpents, ut atrum
corpore combiberet venenum,
deliberata morte ferocior;”**

**“.....She, seeking to perish more nobly,
neither panicked, like a woman, at the sight of the sword,
nor made for hidden shores with her swift fleet.
She dared to survey her fallen kingdom with a calm countenance,
and bravely handled the fierce serpents, in order that she might
take up the black poison into her body,
more fierce in her determination to die.”⁵⁶**

It may be the case that Cleopatra forced the venomous snakes to bite her, and thereby absorbed their poison, but it would have been much simpler and quite a bit more reliable

⁵⁴ Horace *Odes* 1.37.

⁵⁵ Ibid 1.37.21 contains the sharp transition from abuse and insult to admiration. Horace emphasizes the queen's desire to rob her captor of his prize and to face death in a masculine way. Dido, another respected female authority figure, was said by Virgil to have acquired poisons for the spectacle of her death (4.513). Vergil may have used the death scene of Cleopatra as a model for his portrayal of Dido's suicide.

⁵⁶ Horace *Odes* 1.37.21-9, my translation.

to “milk” the snakes first, and then ingest or apply their poison.⁵⁷ Her “handling” (*tractare*) of the serpents is quite vague, and could mean a variety of things, including holding the snakes at that very moment, or “manipulating” them for the sake of harvesting their venom. Toxins taken directly from freshly milked vipers could easily be administered in quantities large enough to ensure a person’s death, whereas coaxing a snake to bite repeatedly would be far less reliable, not to mention a bit awkward. While it is obvious that Horace was not attempting to describe these events on the basis of an eye-witness account, it is reasonable to consider that the likelihood of milking a snake for the sake of accumulating sufficiently strong poisons far outweighs the probability that the queen would place her faith in less reliable means such as direct exposure. In either case, Cleopatra chose to die in the quickest and most reliable fashion. Large quantities of viper venom, more trustworthy than even a well placed sword thrust, ensured that the queen would rapidly die, without the possibility of capture. Because different poisons of different strengths could be made, one was not always guaranteed that death by poisoning would be swift and painless. Livy provides an example indicating that poison was considered a slower death than the sword.⁵⁸ In this episode a mother gives the choice of poisoning or the sword to her children, and states explicitly that poisoning is the slower of the two. Our texts present poisonings in which the victims die immediately after ingestion, and also after a period of hours or days. This all depends on the specific method of preparation used in making the poison, and which particular plant or animal toxin is used. Cleopatra chooses to use a strong poison to ensure her swift demise. The

⁵⁷ The best evidence for this assertion lies in Strabo’s account that the queen actually used a salve to poison herself (*Geographia* 17.1.10). The fact that he refers to this poisonous salve may reflect the commonly held opinions of his contemporaries, or it may be his own way of making sense of her suicide.

⁵⁸ Livy *Ab Urbe Condita* 40.4.

ingestion of venom taken from several snakes would work more quickly than trying to self-inflict multiple bites. That is, her suicide by poison was aptly suited to her desires, and was considered to be a courageous form of death. Horace has nothing but praise and admiration for the method and manner of her death. Once again, suicide by poisoning seems to escape the moral stigma so closely attached to poison-makers and drug-wielding murderers.

Like Cleopatra, the Capuan senate used deadly poisons to preserve its honor and integrity, when in 211 a group of its members was forced to commit suicide after deciding to make a ruinous and short-sighted alliance with Carthage.⁵⁹ After the city was besieged by the Roman army, Vibius Virrius, the leader of the alliance, felt compelled to surrender his life along with the city, and offered the same fate to those who supported his decision to revolt. In a passionate speech before the assembled senate, Virrius boldly proposed his sorrowful plan of redemption:

“...cum mortem ne recusare quidem debeam, cruciatus contumelliasque quas parat hostis, dum liber, dum mei potens sum, effugere morte praeterquam honesta, etiam leni possum. Non videbo Ap. Claudium et Q. Fulvium Victoria insolenti subnixos, neque vinctus per urbem Romanam triumphi spectaculum trahar, ut deinde in carcerem conditus exspirem aut ad palum deligatus, lacerato virgis tergo, cervicem securi Romanae subiciam; nec dirui incendique patriam videbo...quibus vestrum ante fato cedere quam haec tot tam acerba videant in animo est, iis apud me hodie epulae instructae parataeque sunt. Satiatis vino ciboque poculum idem quod mihi datum fuerit circumferetur; ea potio corpus a cruciatu, animum a contumeliis, oculos, auris a videndis audiendisque omnibus acerbis indignisque quae manent victos vindicabit. Parati erunt qui magno rogo in propatulo aedium accenso corpora exanimata incendant. Haec una via et honesta et libera ad mortem. Et ipsi virtutem mirabuntur hostes...”

“...inasmuch as I ought under no circumstances to refuse death, I, while free and my own master, can escape tortures and insults which the enemy is preparing, by a death which is not only honorable, but also gentle. I shall not see Appius Claudius

⁵⁹ Livy *Ab Urbe Condita* 26.13-14.

and Quintus Fulvius, emboldened by their insolent victory, nor shall I be dragged in chains through the city of Rome as a spectacle in triumph, so that I may then breathe my last in the prison, or else, bound to a stake, with my back mangled by rods, may submit my neck to the Roman axe. Nor shall I see my native city destroyed and burned...as many of you as are minded to yield to fate before they see all these sights that are so bitter, for such in my house a feast is spread and in readiness today. When we have had our fill of wine and food, the same cup which has been served to me shall be carried round. That draught will defend the body from torture, the mind from insults, eyes and ears from seeing and hearing all the bitter and unseemly things which await the vanquished. Men will be ready to light a great pyre in the court of the house and throw our lifeless bodies upon it. This is the one way, at once honorable and independent, that leads to death. Even our enemies will admire our courage..."⁶⁰

Virrius, or perhaps Livy, believed that suicide would preserve his honor and virtue in the hearts of his fellow Capuans. His death was obtained by ingesting a draught of poison.

This act bore neither the taint of moral guilt nor personal weakness, but instead served to establish the strength of his reputation. Virrius was not looked upon as the crafty poison-brewer, but was presented by Livy as a virtuous man facing death and redemption with courage. The scene also includes a good description of the poisoning itself, in which the cup is passed from one person to the next. It is likely that the poison was administered in a single large dose. Unfortunately for Virrius and his twenty-seven followers, their particular poison was not strong enough. After suffering the initial effects of the drug throughout what was probably an extremely unpleasant evening, they eventually succumbed the following day.⁶¹

⁶⁰ Livy *Ab Urbe Condita* 26.13.14-19, translated by F. G. Moore.

⁶¹ Livy *Ab Urbe Condita* 26.14.3-5. Livy says: "Filled with food and wine, their veins made the poison less effectual in hastening death. And so, although most of them were in the throes through the whole of the night and part of the following day, all of them, however, died before the gates were opened to the enemy." (Translated by F.G. Moore) It is likely that they did not have time to prepare the poison properly due to the conditions of the siege in which they found themselves. A large quantity of food can indeed buffer the effects of poisons, but many highly lethal toxins would not take this long to work—even on a full stomach. A major overdose of opium, a readily available drug in Rome, is a good example of a much more quickly acting poison.

Phyllis, Cleopatra and these Capuan senators all considered poisoning when they chose to end their lives in order to preserve their honor. From their three suicides, several conclusions can be made. Poisoning oneself does not seem to bear the moral taint associated with poisoning others; much to the contrary, if performed for the right reasons, the act of poisoning could be a venerable undertaking. Indeed, suicide was the only use of lethal poisons that carried a reasonable degree of acceptability for the Roman world. In addition, these three episodes show us that the craft of poison-making was a delicate one, because some poisons were clearly more effective than others. All segments of society participated in death by poisoning, from the disgruntled lover to the powerful aristocrat, and the dreaded act of suicide seems to have been unrestrained by considerations of gender, status and wealth. Indeed, Romans feared the deadly craft of the poisoner only insofar as they had no need of poison, but when it became necessary, a good strong poison was absolutely essential.

Poisoning and Conspiracies

If poisons did not gain a bad reputation from some sort of connection with suicide, why do our surviving sources make it seem that poison-making was such a feared practice in Rome? The answer is as troubling as it is simple: poisoning one's enemies was a valuable means for aristocratic families to gain power, money and influence. Whether poisoning was used as frequently on or by poorer Romans is a question that seems to defy a concrete answer, but it is abundantly clear from our Latin texts that prominent Roman citizens were afraid of possible attempts on their lives by poison-makers, and often themselves relied on drugs to solve their own difficult

situations. In addition, the ruling aristocracy in the city of Rome took drastic steps to halt resistance against their influence by holding legal investigations into mass-poisoning conspiracies. There is no indication that such conspiracies actually took place, but many Romans were charged on such grounds and condemned.

An official inquiry into poisoning conspiracies was undertaken as early as 331, and was but the beginning of a series of state sponsored investigations (*quaestio veneficiis*) that were meant to apprehend anyone who employed poisons as a means of doing away with unwanted government officials. As discussed previously, the findings and judgement of this official inquiry was swift and exacting; a group of over one hundred women was accused of making poisons and then executed.⁶² The year was marked by pestilence, but the death of several prominent aristocrats was blamed on these women, because they happened to possess the raw materials necessary for making poisons. There may have been some legitimacy to such a claim, but it is equally possible that the women were unjustly blamed as a result of a native distrust among Roman men of the combination of women and poisons.⁶³ This sentiment was expressed most clearly by Cicero, who claimed that a woman found guilty of a single offense was probably also a poisoner.⁶⁴ Livy, however, believed the charges against these women were probably false.

⁶² Livy *Ab Urbe Condita* 8.18. While the fear of women using poisons to kill their prominent husbands may sound a bit far fetched, Strabo seems to provide direct support for this notion (*Geographia* 15.1.30).

⁶³ Oakley makes an interesting observation concerning the historical tradition of the women's conspiracy: "The ladies would be absolved of criminality, if one were to hold either that they had really been making love-philtres or that they had to prove their innocence or guilt in a trial by ordeal..." (Oakley (1998): Vol. II. p.595). This makes it seem as if women were allowed to dabble in drugs as long as they were only practicing some form of amatory magic. Oakley also believes that some of the more sensational aspects of the story are historically unreliable.

⁶⁴ Cicero *Rhet. Ad Herennium*. 4.23.7; 4.23.16.

Regardless of whether or not this inquiry into poisoning was justified, several wider investigations into the same types of conspiracies took place in the early second century. Polybius happened to live at this particularly volatile juncture of time and tells us that crimes of conspiracy, treason, assassination and poisoning fell under the jurisdiction of the Senate, and required public investigations.⁶⁵ Several widespread investigations of conspiracies took place between the years 186 and 179.⁶⁶ Livy traces the first such inquiry back to a single Greek, who settled in Etruria and practiced fortunetelling while gathered a large following of disreputable people who performed all manner of indecent acts.⁶⁷ The conspiracy included the followers of Bacchus, and was apparently so significant that the attention of both consuls was diverted to the task of dealing with this problem alone. Livy's remarks on the immoral nature of the cultic acts of those who participated in the secret worship of Bacchus are delightfully detailed, and probably reflect an inherent fear of the unknown:

"Cum vinum animos incendisset, et nox et mixti feminis mares, aetatis tenerae maioribus, discrimen omne pudoris exstinxissent, corruptelae primum omnis generis fieri coeptae...Nec unum genus noxae, stupra promiscua ingenuorum

⁶⁵ Polybius *Histories* 6.13.4.

⁶⁶ The use of poisons and the social interest in poisons flourished during the second century when more drug experiments were being performed on humans by interested physicians. See T. C. Allbutt, *Greek Medicine in Rome*, p. 347. At this time eastern tyrants also expressed an interest in poisons and antidotes that may have increased the public's awareness and fear of poisoning. Mithridates VI of Pontus was perhaps the most well known dabbler in dangerous drugs, but Attalus of Pergamum, Nicomedes of Bithynia and Antiochus of Syria were all interested in gaining knowledge of poisons and their uses. See G. Majno *The Healing Hand* (Cambridge, 1975): pp.414-15; Allbutt *Greek Medicine in Rome* (London, 1921): p.356; P. Green, *Alexander to Actium: The Historical Evolution of the Hellenistic Age* (Berkeley, 1990): pp.483, 558.

⁶⁷ Livy *Ab Urbe Condita* 39.8. The fact that the Bacchanalian conspiracy was believed to be the work of one obscure Greek is probably a reflection of Livy's own attempt to rationalize such strange events by blaming a foreigner. "The vague formulation (some obscure Greek) suggests that this is guesswork by Livy's source; in fact, the orgiastic ritual was widespread by this date in both Etruria and southern Italy; the Romans were still uncovering evidences of it in 184 and 181" Walsh (1994): p.118.

feminarumque erant, sed falsi testes, falsa signa testamentaque et indicia ex eadem officina exibant; venena indidem intestinaeque caedes, ita ut ne corpora quidem interdum ad sepulturam exstarent."

"When wine had inflamed their minds, and night and the mingling of males with females, youth with age, had destroyed every sentiment of modesty, all varieties of corruption first began to be practiced...There was not one form of vice alone, the promiscuous matings of free men and women, but perjured witnesses, forged seals and wills and evidence, all issued from this same workshop: likewise poisonings and secret murders, so that at times not even the bodies were found for burial."⁶⁸

The average Roman had no idea what was taking place in these secret rites, and it was obviously quite easy to assume that poison-making was just another clandestine activity of this wicked group. The thought seems to be that the participants must have been guilty of poisoning by reason of their association with other forms of illicitly immoral behavior. That is, if they had orgies, they probably brewed poisons too.⁶⁹

The suspicions generated by the Bacchanalian conspiracy fostered a number of official inquiries into mass-poisoning. In 184, the praetor Quintus Naevius Matho, who was given Sardinia as a province, was officially assigned the task of investigating cases of poisoning.⁷⁰ He spent four months examining these charges and condemned roughly 2000 people, most of whom resided in the rural communities on the outskirts of Rome. Four years later, another man, Gaius Claudius was entrusted with a further investigation

⁶⁸ Livy *Ab Urbe Condita* 39.8.6-8, translated by E.T. Sage. Also, it should be noted that those who performed these secret rites may have been accused of dealing in poisons on the basis of the use of drugs in their rites. That is, it may have been that the followers of Bacchus employed the use of narcotics such as opium to enhance their ecstatic experiences. There is no direct evidence for this, but it remains a distinctly logical possibility.

⁶⁹ "Behind the domestic drama (of the Bacchanalian conspiracy) and its romantic flavour lie the changes in the social and economic conditions which had overtaken Italy in the previous thirty years. The dislocation of population caused by the Hannibalic War had resulted in large-scale immigration into the towns, especially into Rome itself" Walsh (1994): pp.4.

⁷⁰ Livy *Ab Urbe Condita* 39.38-41.

of suspected poisoning in the city itself, and Gaius Maenius was given the same task in areas surrounding the city.⁷¹ Maenius condemned 3000 people, and was so overwhelmed with the investigation that he was unable to perform any other official duties. Finally, in 179, Publius Mucius Scaevola was assigned the task of carrying out yet another investigation of mass-poisoning in Rome.⁷² The sheer number of these investigations and the amount of time dedicated to them by public officials would seem to imply that mass-poisoning could not have been simply a figment of the Roman imagination.

Based on Livy's accounts of these investigations we can estimate that approximately 5000 people, within five years, were accused and condemned of conspiracies involving poisoning. This large number is striking and raises some obviously difficult questions regarding the validity and reason for such official inquiries. For example, is it significant that each of these conspiracies took place at a time when Rome was suffering from serious plagues? Livy was convinced that the death of a number of prominent Romans in 331 was more likely to be the outcome of disease than an organized conspiracy. Perhaps the inquiries into poisoning were the result of pure suspicion, but during a plague it would certainly be much easier for a doctor to slip a consul or praetor the wrong drug. The possible explanations are numerous, but one thing is certain: the conspiracies may have been exaggerated, but the fear of being murdered by poisoning was quite real.

It is difficult to imagine the means whereby a mass-poisoning conspiracy could have been successfully carried out. Although Livy does not speak about the social position of the accused conspirators, it is likely that the number of the condemned was

⁷¹ Ibid 40.37-43.

⁷² Ibid 40.44.

filled with representatives from all walks of life. If there were indeed real conspiracies, they were probably planned by a few prominent families, who used a large number of slaves, merchants and various craftsmen to carry out their plan to kill off their political enemies. An alternative to this idea is an attempted revolution of specific segments of society. While it is not impossible to imagine that these conspiracies were the result of tensions between patricians and plebeians, it is much more difficult to see them as the revolutionary acts of poorer classes of people or slaves. Mass-poisoning undoubtedly requires far too much planning and too many resources to be a tool of the poor and ignorant. Whether the conspiracies were actually conflicts between the social orders, acts of desperate aristocratic families, or a tool of the ruling elite to purge society of its trouble-makers, they remain a fascinating and mysterious phenomenon.

Poisons and Roman Law

Public conspiracies and capital crimes involving the use of poisons troubled the Republic from its infancy. Poisoning became an important legal issue and inspired jurists and legislators to enact specific laws prohibiting the use of drugs as murder weapons.⁷³ Even the oldest Roman law code, the twelve tables, contains a reference to the use of helpful and harmful drugs.⁷⁴ Although the word *venenum* does not seem to be part of the original wording, it is important to recognize that an attempt was made very early in Roman history to draw a clear distinction between injurious drugs (*venena mala*) and beneficial drugs (*venena bona*). The earliest references to poisons in Republican

⁷³ For a brief discussion of Roman law and poisons see Kaufman, p.166.

⁷⁴ Fragments of the Twelve Tables 1.8.25.

literature include: Ennius *Annales* 554; Caecilius Fragment 49; Pacuvius Fragment 275-6; Accius Fragments 549-53, 581. The poisons mentioned include such things as arrow toxins, abortifacients and viper venom. However, this classification of drugs as “good” or “bad” was difficult and perhaps even arbitrary. As Cicero tells us, it was quite easy to confuse medicine (*medicamentum*) and poison (*venenum*).⁷⁵ Against the murky background of this confusion emerged the Cornelian law against murder and poisoning, known to the Romans as the *Lex Cornelia de sicariis et veneficiis*. During the early decades of the first century, the dictator Sulla provided a permanent court for the consideration of murder and poisoning charges, which was presided over by a praetor and composed of jurors who were all senators.⁷⁶ Before the enactment of this law, general cases of homicide were dealt with by the *paterfamilias*, but there were special courts already established to deal with cases of poisoning.⁷⁷ By the second century a need for specialized courts dealing with specific forms of murder emerged.⁷⁸ The widespread poisoning conspiracies of this period may have prompted concerns regarding public exposure to easily obtained toxic substances. This may be why the Cornelian law against poisoning included the *sicariis* or “dagger men,” which were organized groups of ruffians or gangsters with apparent political motivations.⁷⁹ In its entirety, the law was written to

⁷⁵ Cicero *Pro Cluentio* 53.

⁷⁶ Robinson, *The Criminal Law of Ancient Rome* (Baltimore, 1995): pp.2-4, 41-2; Rigsby, *Crime and Community in Ciceronian Rome* (Austin, 1999): p. 50.

⁷⁷ Gruen, *Roman Politics and the Criminal Court, 149-78 B.C.* (Cambridge, 1968) p.262. Also, Polybius makes reference to courts established for the sake of poisoning. He claims that crimes of conspiracy, treason, assassination and poisoning are under the jurisdiction of the Roman senate and require a public trial or inquiry. See Polybius 6.13.4.2.

⁷⁸ Robinson (1995): pp.41-2.

⁷⁹ Rigsby (1999): pp.51-4.

include murder, poisoning, assassination, parricide and even judicial bribery.⁸⁰ That is, the *Lex Cornelia de sicariis et veneficiis* was designed to protect the state against prominent forms of politically motivated turmoil and social unrest.⁸¹ Pieces of the law itself have been reconstructed by interested scholars:

“Hold a capital trial of any man who was or will have ‘been with weapon’ for the sake of killing a person or of committing theft, or who has killed or shall have killed a man, or by whose malicious intent this has been or shall have been done...Hold a capital trial of him who has made or will make, sold or will sell, possessed or will possess, or given or will give poison. And also try on the same terms him who, as tribune of soldiers for the first four legions or quaestor or tribune of the plebs...[other offices]...or as one who has spoken or will speak an opinion in the senate, conspires or will conspire, plots or will plot, connives or will connive, or gave or will give false testimony so that someone may be condemned by a *iudicium publicum*.”⁸²

What is so interesting about this particular reconstruction of the law is its assignment of culpability on the basis of possession alone. The simple act of possessing a weapon while demonstrating the intent to murder or commit theft was sufficient grounds for prosecution. In the same manner, the mere possession, preparation or sale of poisons was illegal. In addition, the law protected against the use of the judicial process itself as a means of committing murder. The Cornelian law seems to have been written with the intent of protecting Roman society from the use of specific lethal weapons including daggers, poisons and even juries. The particular emphasis and strength of the law was

⁸⁰ Gruen (1968): p.262.

⁸¹ It is important to note F. Graf's proposal in his work *Magic in the Ancient World*: the Cornelian law was actually written to protect against murderous magic acts (p.46). Graf claims that *veneficium* could refer to poisons or “clandestine means” (p.47). He argues that “Death by poisoning and death by black magic are thus but a single category contrasted with death by violence” (p.47).

⁸² This particular reconstruction was performed by Rigsby (1999): pp. 51-2. The proposed Latin versions have been left out because they are based on a reconstruction and are not original. I did not want to give the false impression that these were actual Latin texts.

undoubtedly the prosecutor's ability to present the defendant as guilty on the basis of possession alone. It may be the case that pre-Sullan legislation could only be used to try cases of murder and not intended murder, but by the first century, it was certainly possible to be prosecuted on the grounds of possessing weapons commonly used in murder, without actually having killed or harmed anyone.

The *lex Cornelia de sicariis et veneficiis* is not only a law against murder; it is also the earliest form of drug regulation in Rome. According to Justinian's *Institutes*, the law was designed to prevent anyone from giving dangerous drugs (*medicamenta mala*) to the public as well as committing murder.⁸³ Drugs were recognized as having lethal potential in addition to health-restoring qualities, and as a result an attempt was made to prevent the public from being exposed to hazardous toxins. This law made it illegal to prepare, buy, sell, possess or administer poisons (*venena*).⁸⁴ No legal standard of determining what was a "medicine" and what was a "poison" survives, but it is clear that the Romans of the Republic began using legislation to prevent the production and distribution of lethal drugs. The Cornelian law even restricted the use and possession of certain lethal drugs among physicians and drug-sellers. In fact, the law does not exempt doctors and pharmacists from prosecution. Much to the contrary, our surviving trials of poisoning reveal a clear link between physicians and the availability of dangerous drugs. Oftentimes the trail of criminal activity, committed by those attempting to obtain poisons and learn their methods of preparation, can be traced directly back to a physician. The Cornelian law must have led to the restricted use of specific drugs, but the extent of this effect of the law can not be determined from our surviving evidence.

⁸³ Justinian *Institutes* 4.18.5-6.

⁸⁴ Cicero *Pro Cluentio* 148, "Quicumque fecerit, vendiderit, emerit, habuerit, dederit."

Despite the use of the word *venenum* in many of our Republican texts, poisons were always considered to be drugs or *medicamenta*, and were never distinguished as a separate class of pharmaceuticals. After all, even useful medications were clearly capable of harming patients, when they were used excessively or in improper dosages. Many authors betray an unwillingness to establish a clear-cut distinction between poisons and drugs in general. Such imprecision concerning the nature of specific kinds of drugs undoubtedly contributed to the legal difficulties of prosecuting cases of poisoning, but the Cornelian law solved this problem by making the defendant's personal motivation the crux of the issue, rather than the lethal nature of the substance in his possession.

Two particular speeches of Cicero demonstrate the importance of establishing motive in poisoning cases. They also reveal elements of such trials deemed necessary for obtaining a conviction, an acquittal or a verdict of "not-proven." Trials for poisoning reveal much about the widespread use of drugs as a means of committing homicide and the efforts of Roman statesmen to limit their distribution and use.

The *Pro Caelio* and *Pro Cluentio* are both concerned with the charge of poisoning and the proper defense against such accusations, and both offer an accurate image of the struggle in Republican Rome for protection and self preservation among the aristocracy. In both cases, Cicero defends his client against, among other charges, the *Quaestio Veneficii*.⁸⁵ The manner in which each case was argued illustrates the particular concerns of the members of the court, who deliberated on the issue of murder by poisoning, and helps us to understand the conflict of the law with the art of the drug-making. Cicero's concerns directly reflect the expectations of the court, and reveal to the modern audience

⁸⁵ Cicero *Pro Cluentio* 1-2.

the arguments and evidence required to convict or exonerate someone accused of poisoning. In both cases, Cicero attempts to reestablish the nobility of his client's character in the face of such morally injurious charges.⁸⁶ He also focuses on successfully refuting the particular method of poison procurement presented by the prosecution, and the defendant's inability to concoct such a deadly preparation. That is, in both speeches, the important elements of the poison trial revolve around the issues of motive and personal capability. Although the question of motive or character is a common consideration in Republican cases concerned with such crimes as murder, treason and corruption, the value of establishing the defendant's ability to procure, concoct and administer a poison is a unique aspect of the *Quaestio Veneficii*. The *Pro Caelio* and *Pro Cluentio* reveal much about the struggle between the pervasive ignorance of the properties of drugs in urban populations and the potentially harmful capacities of those who possessed an understanding of poisons.

Marcus Caelius Rufus, a client and former student of Cicero, was charged with obtaining a poisonous drug and the means to prepare it properly. Although his alleged victim, Clodia, was never poisoned, he was prosecuted under the Sullan *Quaestio Veneficii*.⁸⁷ Cicero refers to the actual charges as a "*crimen de veneno*" and "*de veneno in Clodiam parato*."⁸⁸ That is, Caelius was accused of having prepared a poison for the sake of committing murder, rather than having actually murdered someone. The charge and its defense hinged upon Cicero's success in proving his client's inability to procure

⁸⁶ Propertius tells us that a good name was easily destroyed by an accusation of poisoning (2.31-32, 32.26).

⁸⁷ Cicero *Pro Caelio* 51.4.

⁸⁸ Ibid. 56.2.

and prepare poisons. In order to refute the poisoning charge, Cicero attempted to disprove the prosecution's claim that Caelius obtained the poison at the baths and then administered it to a slave to verify its lethal potential.⁸⁹ The investigation is much more concerned with Caelius' ability to make poisons than any actual use of dangerous drugs. It seems bizarre that a trial for poisoning should take place without someone actually having been poisoned, but it is clear from this particular case that attempted murder and the act of obtaining the tools necessary to commit such a homicide were grounds for prosecution under the Cornelian law. The *Quaestio Veneficii* was indeed a trial of poisoning, but the charge was applied generally to include the acquisition and preparation of poisons, so Caelius could be charged although he actually killed nobody.⁹⁰ Cicero thinks such charges are ironic, considering that his client's intended victim, Clodia, was suspected of having poisoned her own husband, Quintus Metellus Celer.⁹¹ Character remains central to the trial, and Caelius is held up as a model of virtue against the background of Clodia's scandalous practices. Cicero refutes the charges on the basis of his client's upstanding character and the unlikely nature of the story offered concerning his attempts to obtain the poison and test it on one of his slaves. He argues that Caelius was so noble that he could not have committed such a crime.

The defense of Cluentius is far more intricate than that of Caelius, but bears some distinct similarities. For example, not only has Cluentius been accused of a "*crimen veneficii*," but so have his accusers. In his speech, Cicero mentions a number of

⁸⁹ Ibid 58-65.

⁹⁰ Ibid 51.4.

⁹¹ Ibid 58.4, 9; 60.5, 11.

poisonings including, among others, that of a young boy in good health,⁹² several young children,⁹³ and even a pregnant woman and her husband.⁹⁴ The motive in each case was related directly to money or some form of inheritance—a fact that sheds some needed light on the prominence of poisoning in aristocratic families.⁹⁵ The number of poisonings in the *Pro Cluentio* is both disturbing and thought provoking. Were the Romans so familiar with the crime of poisoning that the jurors in this case were not entirely shocked at the sheer number of poisonings reported by Cicero? Was poisoning such a commonplace occurrence in Rome? Do Cicero's numerous references to poisoning accurately reflect the frequency of homicide by means of lethal drugs? It is difficult to imagine living in a society where prominent citizens are continually subjected to the reality of murder by poisoning, but the vast number of references in this speech seems to support this notion, and may explain the particular concerns of specific authors like Catullus.⁹⁶

Instances of poisoning in the *Pro Cluentio* tell us a great deal about some of the more practical aspects of poisoning not yet examined in this chapter. For example, by the

⁹² Cicero *Pro Cluentio* 27. It only takes an hour for this boy to die, indicating that the poison was quite strong.

⁹³ Ibid 27. The young children are said to have been killed by their own father.

⁹⁴ Ibid 31. The poison is immediately detected in this instance. Sometimes the person poisoned knew they were going to die, and sometimes the poison was odorless and tasteless. This passage also presents chemical abortion as an act of murder. However, the legal victim was not the child: "Abortion, usually thought of by the Romans as brought about by drugs, was a related topic, but one where the perceived victim was not the unborn child but its *paterfamilias*, who was deprived of his lawful rights." Robinson (1995): p.41.

⁹⁵ Virgil also mentions poisoning for the sake of obtaining an inheritance. Apparently, step-mothers were known for this vice (*Georgics* 2.129). Poisoning for the sake of gaining wealth is also mentioned by Cicero in the *De Domo Sua*, 115.10. Kaufman also believes that murder for the sake of gaining an inheritance or solving family problems was common (pp. 157-9).

⁹⁶ Catullus *Carmina* 23.

first century the art of poisoning had become quite efficient. Several of the poisoned murder victims died instantly or in a very short time after consuming the drug, and although some even knew they were poisoned—and doubtlessly would have attempted to find and use antidotes—they were entirely unable to prevent their own deaths.⁹⁷ Also, the preferred medium for these powerful drugs was wine or some other liquid that could be effortlessly delivered to an unsuspecting victim. Ovid even claims that honey hides the taste of poison, while Lucretius says that a child's discriminating palate can be fooled when bitter medicines are disguised with honey.⁹⁸ It is likely that some poisons required a strong tasting medium to mask their presence. This may be why mead, or honey wine, was used by several poisoners. Poisoned drinks were believed to be more effective and far less detectible than any other poisoned substance, such as bread. Near the end of the *Pro Cluentio*, Cicero attempts to discredit the prosecution by asserting how absurd it would be to use bread as a medium for poison rather than wine:

“Iam vero illud quam non probabile, quam inusitatum, iudices, quam novum, in pane datum venenum! Faciliusne potuit quam in poculo, latius potuit abditum aliqua in parte panis, quam si totum colliquefactum in potionem esset, celerius potuit comestum quam epotum in venas atque in omnes partes corporis permanere? Facilius fallere in pane, si esset animadversum, quam in poculo, cum ita confusum esset, ut secerni nullo modo posset?”

“Again, what an improbably story is this—how unusual, gentlemen, and how strange—this giving of poison in bread! Could it thus more easily permeate the veins and every part of the body, than if given in a cup, more thoroughly when stowed away somewhere in a piece of bread than if it had been completely dissolved in a draught, more speedily when taken with food than with drink? Would it have

⁹⁷ Cicero *Pro Cluentio* 27; 30; 31.

⁹⁸ Ovid *Amores* 1.8; Lucretius *De Rerum Natura* 4.11-13.

been harder to detect in bread, if attention had been drawn to it, than when so dissolved in the contents of a cup as to be quite indistinguishable?”⁹⁹

Wine or some strong drink was clearly the preferred manner of administering poison to one's victim during the Republic. Cicero even supplies medical reasons for the efficacy of wine as a carrier of poison. If we are to believe him, it would seem that poisoning in Republican Rome was usually carried out by tampering with someone's drink.

It also appears that poisoning did not need to be carried out when the victim was alone. Cluentius was accused of trying to poison the young Oppianicus during his own wedding feast.¹⁰⁰ According to the prosecution, the poison was carefully placed in the intended victim's mead, probably to disguise its taste, but the cup was intercepted and consumed by one of the groom's friends. This unfortunate fellow died immediately. The groom was certainly lucky, but his brush with death was not at issue here. What is important to note is the boldness of this plan; poisoning a man at his own wedding is certainly more risky than doing away with him in a less crowded setting. Each of the numerous guests was a potential witness, including all the slaves involved in the preparation of the meal. A public poisoning like this must have conveyed a distinct political message to the community; surely, the wedding attendants quickly spread the news of the harrowing event to their neighbors who genuinely relished the tasty gossip and then passed it on to others. The murder may have been more political than personal.

Another interesting aspect of the act of poisoning found in this defense speech is the value of physical evidence in public trials. According to Cicero, the seizure of the

⁹⁹ Cicero *Pro Cluentio* 173.

¹⁰⁰ *Ibid.* 166.

poison that was intended to kill the victim can be powerful evidence in the conviction of poisoning cases. With three words, “*venenum esse deprehensum*,” Cicero’s opponent placed the golden tongued orator and his anxious client in a very precarious position, which he admits caused him great anxiety.¹⁰¹ The presence of physical evidence, such as the poison itself, undoubtedly strengthened the prosecution’s case, but it also raised the most important question in investigations of murder by poisoning. Who identified, or determined the lethal value of drugs believed to be poisonous? Was this a simple matter of testing the drug on slaves, as Cluentius allegedly did, or were “expert witnesses” such as doctors or drug sellers used to make such determinations? There is not enough evidence in the *Pro Cluentio* to make any conclusions about such matters, but it is important to note that such issues must have been addressed by juries and advocates in courts established for the purpose of dealing solely with the crime of poisoning. In Cicero’s *Pro Rege Deiotaro* we find a slave bribing a doctor to bring charges of poisoning. This would seem to support the role of physicians in determining the lethal nature of drugs in poison trials.¹⁰²

Conclusion

Poisonous drugs provided Roman society with exciting material for both fictional and real-life drama. In the wrong hands, lethal drugs acted as a convenient means of

¹⁰¹ Ibid. 50. It is also important to consider the question of punishment. That is, who should be punished when poison is discovered? Should the courts punish the one who obtained the poison or the one for whose use it was obtained? It would appear from the Cornelian law that anyone in possession of the poison was culpable, as well as the one who desired to use it, but it is important to note that the law appears to have been written exclusively for elected officials and senators. A slave who was caught with poison on his person was probably subject to the authority of his master rather than a judicial investigation.

¹⁰² Cicero *Pro Rege Deiotaro* 17.12.

murdering one's enemy with little fear of detection. As antiquity's "high-tech" weapons of assassination, poisons created public confusion and sometimes even mass hysteria. Pharmaceutically savvy killers used drugs to gain wealth, eliminate potential rivals and even end their own miserable lives. As a result, the practice of the drug-maker was closely associated with the most mysteriously untrustworthy figures of myth and literature. Poisoners and their dark practices created a problem for governors and governed alike; this intangible chemical menace created such fear that Roman officials were forced to create prophylactic measures whereby the average aristocrat might feel a bit more assured of his own personal safety.

The earliest of Roman laws, the Twelve Tables, reflects this pharmaceutical anxiety, but the Cornelian *lex de sicariis et veneficiis* was the first legal measure to vilify the poison and the poisoner alike. The law may appear to be simply a means of preventing murder by poisoning, but it is essentially an attempt to outlaw the use of dangerous drugs and to limit their pervasive presence in Roman society. The Cornelian law was intended to protect the public as well as the government from any exposure to weapons of secrecy and conspiracy, and could only be successful if the method of murder itself was made criminal. In order to prevent events like the mass poisoning conspiracies of the second century, and the private murders of elite Roman citizens and statesmen, concerns regarding drug possession, preparation and administration had to be addressed. Murder was always illegal, and unless the intended victim was oneself, the crime was certainly never overlooked or dismissed from legal considerations. Indeed, the Cornelian law of the first century reinforced the illegality of a "thing" and not an "act." Poison was

criminalized, and by extension, so were harmful drugs. This may have had profound implications on the practice of medicine in Rome and on the sale of specific drugs.

While it may be difficult to determine the exact effects of this legislation on medicine and pharmacy, it is likely that doctors of the post-Sullan era understood the responsibility accompanying the prescription and use of potent drugs. Despite the possibility of a certain 'heightened awareness' in the Roman medical community of the late Republic, the responsible use of drugs was not a novel concern for the ancient physician. The Greeks had already faced this issue, and attempted to resolve it with nothing less than the Hippocratic Oath itself, which forbids the use of drugs for the sake of procuring death. Roman physicians may not have made a practice of following Hippocratic precepts, but they were certainly able to sympathize with its promise to "do no harm," and its refusal to supply a patient with lethal drugs.

Chapter #4: Cosmetic Drugs

Introduction

Cosmetics, a term including both makeup and perfumes, were made of the same plants that were regularly used in medicine. The Romans never clearly distinguished between medicines, poisons and cosmetics. Each was essentially a plant or animal product that was used to affect the body in some particular way; each was a drug.¹ Myrrh is a perfect example: as an aromatic resin, it was often used as a component of a complex salve used to treat skin infections, but it also worked well as a kind of ancient deodorant. The difference lies only in its intended purpose.² Much like today, the art of beautifying one's appearance was an integral aspect of human interaction in crowded urban environments. Makeup hid blemishes, while unguents masked odors, and both worked together to facilitate intimacy between the sexes and assisted the social interactions of friends and strangers alike. The science of ancient cosmetics was taken seriously, and coupled with personal hygiene it became an important aspect of daily life in Rome. Ovid

¹ The Romans had no desire to distinguish cosmetics, medicines and drugs, and this has been best expressed by J. Scarborough: "Drugs, foods, and cosmetics were intermeshed in Roman perceptions, much as we think of spices as drugs while also using them to enhance the flavors of foods, or as we think of fragrant emollients as useful in both perfumes and moisturizing creams for the skin." Scarborough, "Drugs and Medicines in the Roman World," *Expedition*. Vol. 38. No. 2 (1996): p.41. This way of perceiving different types of drugs resulted from the botanical origins common to all medicines, poisons, recreational drugs and cosmetics. All of these substances came from similar origins, and were never distinguished on the basis of their various functions. After all, many drugs were used simultaneously as medicines, poisons, recreational drugs and cosmetics. Opium is a perfect example: it was used to treat pain, to kill, to lift the spirits, and to treat the complexion. So was it a drug, poison or cosmetic?

² If given in large enough doses, myrrh could also be used as a poison, but this was never the case in antiquity. As a matter of fact, most ancient botanical drugs can cause severe injury or even death when consumed in large quantities.

beautifully illustrates the Roman preoccupation for proper grooming and the value of cosmetics:

**“Quam paene admonui, ne trux caper iret in alas,
Neve forent duris aspera crura pilis!
Sed non Caucasea doceo de rupe puellas,
Quaeque bibant undas, Myse Caice, tuas.
Quid si praecipiam ne fuscet inertia dentes,
Oraque suscepta mane laventur aqua?
Scitis et inducta candorem quaerere creta:
Sanguine quae vero non rubet, arte rubet.
Arte supercilii confinia nuda repletis,
Parvaeque sinceras velat aluta genas.
Nec pudor est oculos tenui signare favilla,
Vel prope te nato, lucide Cydne, croco.”**

**“I was about to warn you against rank goatish armpits
And bristling hair on your legs,
But I’m not instructing hillbilly girls from the Caucasus,
Or Mysian river-hoydens—so what need
To remind you not to let your teeth get all discolored
Through neglect, or forget to wash
Your hands every morning? You know how to brighten your complexion
With powder, add rouge to a bloodless face,
Skillfully block the crude outline of an eyebrow,
Stick a patch on one flawless cheek.
You don’t shrink from lining your eyes with dark mascara
Or a touch of Cilician saffron.”³**

Here Ovid distinguishes between the western Roman world and the uncivilized east on the basis of feminine hygiene alone. This tells us a great deal about social standards and expectations of the late Republic and early Empire, and gives us particular insight into the use of cosmetics among female members of Roman society.⁴ In addition to worrying

³ Ovid *Ars Amatoria* 3.193-204, translated by Peter Green.

⁴ Ovid speaks of male hygiene in *Ars Am.* 1.505-24. Here he speaks about physical cleanliness, ordered hair, proper dress, the care of nails and nose hairs, and problems with bad breath and body odor. Gibson

about body hair⁵ and underarm odor, Ovid's typical Roman woman concerned herself with the proper care of her teeth, the cleanliness of her skin, and the correct use of makeup. Ovid's portrayal of women in this passage reflects a desire for surprisingly elevated standards of personal hygiene;⁶ such serious concerns for white teeth, shaved skin, and regular bathing, all seem to indicate a complex approach to cleanliness and physical appearance.⁷ In addition to attending to personal grooming, a Roman woman was expected to apply herself to the art of proper face-painting, in order to accentuate her cheeks and eyes. Horace and Ovid shared the same desire for clean, well groomed Roman women, with sophisticated senses of cosmetic propriety.

Roman Makeup

Ralph Jackson, in his *Doctors and Diseases in the Roman Empire*, provides a brief but wonderful description of Roman facial cosmetics made popular during the Empire. His work is concerned with material from Imperial sources, but the description helps to give us a brilliantly personal portrait of Roman cosmetics:

"Most of the other stages of a lady's toilet involved the application of cosmetics: forehead and arms were whitened using chalk or white lead; the cheeks and lips were reddened with wine-lees or ochre; and charcoal or powdered antimony

recognizes Ovid's comedic approach to an otherwise serious subject: R. Gibson, *Ovid: Ars Amatoria Book 3* (Cambridge, 2003): p.172.

⁵ Gibson draws attention to the fact that Roman women were expected to remove unwanted body hair while Roman men who did the same were considered effeminate: Gibson (2003): p.173.

⁶ Despite the fact that this passage seems to promote the use of cosmetics as a means of beautifying the face and general appearance, scholars are quick to point out the negative views on cosmetics in antiquity, and must portray Ovid's praise of facial drugs as a bit out of the ordinary. See Gibson (2003): p.176.

⁷ Poor dental hygiene in antiquity was clearly looked down upon: "Decaying teeth, on which Ovid is close to dispensing instruction, are a literary hallmark of crones and ageing courtesans," Gibson (2003): p.173.

(stibnite) were used to blacken the eyelids and eyebrows. On aged or ageing women, who might also avail themselves of false hair and false teeth in an attempt to create the illusion of youth, the effect struck some as ridiculous...Appearance apart, the use of some mineral-based cosmetics, like stibnite and white lead, could be positively dangerous: Vitruvius warned of the toxicity of white lead and Celsus had a remedy for poisoning by it.”⁸

What can be said then about makeup and facial products before the Empire? One thing is clear from our sources: colored powders and whitening creams were an integral part of an attempt to enhance the natural beauty of the female form. Face-paints containing dyes were applied over a base of white foundation. Roman women considered it fashionable to sport fair skin—whether artificial or the product of many hours indoors.⁹ Over these white powders and creams they applied colorful botanical compounds in order to highlight various facial features including the eyes, eyebrows and cheeks. Deep red was the color of choice for the cheeks, while the eyes were typically accented with black, stunning dark colors, or even the intense yellowish-orange dye obtained from saffron.¹⁰ The many-colored cosmetics were kept in a special box that was never distinguished by name from the physician’s “medicine-chest.”¹¹ In fact, the Romans considered their cosmetics to be just another type of drug or medicine, and never bothered to differentiate them from the botanicals used exclusively by physicians:

**“Tum quoque, compositis cum collinet ora venenis,
ad dominae vultus (nec pudore obstet) eas.
Pyxidas invenies et rerum mille colores,**

⁸ Ralph Jackson (1988) p.54.

⁹ This can be seen in Ovid’s repeated emphasis on the “shining” appearance of women’s faces resulting from the use of good cosmetics. See: Ovid, *Medicamina Faciei* 52; 68.

¹⁰ For some typical color schemes see Ovid *Ars Amatoria* 199-204.

¹¹ According to the *Oxford Latin Dictionary* the makeup container or *pyxis* was used to store medicines(p.1529).

et fluere in tepidos oesypa lapsa sinus.”

**“Then too, when she is painting her cheeks with concoctions of dyes,
go (let not shame hinder you) and see your mistress’ face.
Boxes you will find, and a thousand colors,
and juices that melt and drip into her warm bosom.”¹²**

Ovid’s anonymous mistress uses “drugs” (*venena*) that she stores in her “medicine-chest” (*pyxis*) to freshen up her appearance.¹³ Her multicolored makeup is represented in the same manner as any common cathartic or purgative. Important medical drugs and ordinary cosmetics were probably distinguished by the context of a literary work or the implied meaning of a simple conversation.

It should not be surprising to find that cosmetics were never clearly distinguished from medicines, for the two had much in common in antiquity. Indeed, it is difficult to separate the distinguishing characteristics of Roman dermatological medicines from many of their cosmetics. Both were made from the similar botanical sources, and were eventually intended to beautify the skin. Like their modern counterparts, the Romans were self-conscious, if not completely embarrassed, by obvious facial imperfections like warts, scars and pimples.¹⁴ Unsightly body hair may have been equally offensive, for depilatories were another common cosmetic in antiquity, and unattractive lovers were often pictured as being excessively hairy.¹⁵ Horace wrote an entire poem about one particularly ugly woman, whose poor hygiene disgusted her potential lover:

¹² Ovid *Remedia Amoris* 351-4.

¹³ The *Oxford Latin Dictionary* defines *pyxis* as “a small box or casket used to contain medicines” (p.1529).

¹⁴ Lucilius 23.743.

¹⁵ For a depilatory see: Varro *De Re Rustica* 1.2.27. On hairy lovers see Horace *Epodes* 12, and Ovid *Ars Amatoria* 3.193-204.

"...nec firmo iuveni neque naris obesae.
 Namque sagacius unus odoror,
 polypus an gravis hirsutis cubet hircus in alis...
 qui sudor vietis et quam malus undique membris
 crescit odor...neque illi
 iam manet umida creta colorque
 stercore fucatus crocodili..."

"I am no strapping youth, have no distended nose—
 yet I sniff out the polyp or goat that beds
 in your armpits' bushes...what sweat, what evil stench,
 envelops all her withered limbs...
 foundation cream tinted with crocodile crap,
 powdered chalk, will not adhere;"¹⁶

With hairy armpits that smelled of goats, the poor woman was unable to arouse the poet's passion.¹⁷ However, Horace did not limit his criticism of her physical inadequacies to her hirsute appearance and body odor, but also condemned her on the basis of her ill-kempt makeup.¹⁸ The unfortunate woman was so sweaty that her cosmetics would not stick to her skin. Also, her facial cream contained reptile feces, which undoubtedly smelled worse than her own body odor.¹⁹ Although it was common to use animal

¹⁶ Horace *Epodes* 12. 3-5, 7-8, 9-11, translated by W. G. Shepherd.

¹⁷ In this passage, the narrator's lover complains that she is sexually unsatisfied (see line 8). It is understood that her ghastly appearance is to blame for this problem. Her sweaty skin caused her makeup to run, and for Horace, this is a serious aesthetic problem. The entire poem stands as a monument to poor grooming, and the value of one's personal appearance.

¹⁸ Concerning her armpits: "Horace is probably alluding to Catullus 69, where the poet tells a friend that girls avoid him because of the rumor that a 'wild goat lives in the valley of your wings.'" D. Mulroy, *Horace's Odes and Epodes* (Ann Arbor, 1997): p.220. Horace's criticism is probably satirical.

¹⁹ Horace's striking criticism may be a mixture of his own culture's dislike for poor personal hygiene as well as the Greek models for his poetry: "Epodes VIII and XII, with all their polish, are repulsive. The obscenity of both language and matter was probably intended to carry on characteristic traits of a certain type of early Greek *iambi*. In this respect Hipponax has at least as strong a claim to be regarded as Horace's model as has Archilochus. Improper subjects treated in coarse language played also an important part in some branches of Hellenistic poetry. It is not known whether Horace was influenced by Sotades, the amusing poet of the early Hellenistic period, whom Ennius, at any rate partly, imitated in one of his

products in cosmetics and pharmaceuticals in antiquity, this particular reference was probably meant to be insulting. She smelled like a goat and covered her sweaty face with lizard shit; what could be less arousing to a Roman audience? After all, as Ovid shows us, hairy legs and smelly armpits were the rightful possessions of barbarians, not civilized Roman women—especially that breed of Roman matron who carefully practiced proper hygiene and understood the value of cosmetics.

A more private, almost voyeuristic, picture of grooming women can be seen in Plautus' *Mostellaria*, where the young courtesan Philematium and her older maid Scapha are observed in a private moment inside the house. The short passage gives us insight into two different aspects of feminine beauty: natural assets and their artificial improvement. Philematium tries to spruce herself up for her lover's visit, and relies upon her maid for particular advice about her hair and makeup:

Philematium: "Cedo mi speculum et cum ornamentis arculam actutum, Scapha, ornata ut sim, quom huc adveniat Philolaches voluptas mea...
Suo quique loco (viden?) capillus satis compositust commode?"

Scapha: "Ubi tu commode es, capillum commodum esse credito..."

Philematium: "Cedo cerussam."

Scapha: "Quid cerussa opust nam?"

Philematium: "Qui malas oblinam."

Scapha: "Una opera ebur atramento candefacere postules..."

Philematium: "Tum tu igitur cedo purpurisum."

Scapha: "Non do. Scita es tu quidem. Nova picture interpolare vis opus lepidissimum? Non istanc aetatem oportet pigmentum ullum attingere, neque cerussam neque melinum, neque aliam ullam offuciam."

Philematium: "Will you hand me the mirror and my jewelry box Scapha?
I want to look my best when my favorite person comes home...
Am I all in order? Do have a look at my hair, and tell me

minor works. But it is not unlikely that Horace should have adopted some of the indecencies which, shortly before and during his own time, were fancied by several Greek epigrammatists." E. Fraenkel, *Horace* (Oxford, 1980): pp.58-9.

if it's staying prettily in place."
Scapha: "You are so well disposed
as you are, that your hair couldn't fail to be neatly arranged..."
Philematium: "That jar of face powder..."
Scapha: "Face powder? Whatever for?"
Philematium: "To touch up my cheeks."
Scapha: "You might just as well expect
to whiten the shade of ivory by applying some lampblack..."
Philematium: "Well, then, the rouge please."
Scapha: "No, I refuse. That's not at all clever of you.
Do you want to daub over a beautiful work of art
with streaks of new paint? No false colors should touch
your exquisite youth, no powder, paint, or cosmetics..."²⁰

The slave Scapha then admonishes her mistress on the proper use of perfume, and encourages her to promote her own natural womanly smell, more appealing to men than costly eastern spices. This scene shows that Roman women groomed themselves while paying close attention to ordered hair and flattering makeup; applying makeup that changed the color of the cheeks either white or red was, once again, considered sexually appealing. Well positioned hair and properly placed jewelry were also important, but the focus here is clearly the impact of good and bad makeup on one's appearance. Scapha warns her mistress against the excessive use of cosmetics in favor of accentuating her natural beauty and youthful innocence.²¹ We can conclude from this that Roman women may have been accustomed to wearing generous amounts of makeup, particularly foundation creams and red powders.

Issues surrounding the use of cosmetics were prominent enough to find their way into the works of well-known poets and comic playwrights, but what can be said about the composition of Roman makeup? What ingredients were used in concocting powders,

²⁰ Plautus *Mostellaria* 248-64.

²¹ The point here is that Philematium is both young and lovely and has nothing to hide.

oils and creams, and how were these cosmetics applied? Although Plautus mentions several types of cosmetics used to decorate the face, he does not speak of any specific ingredients, nor does he address the details of their proper use. Fortunately, Ovid's *Medicamina Faciei*, a short poem on the use of makeup, contains a wealth of specific information on the composition and application of particular types of facial cosmetics. In this short work Ovid instructs his audience in the proper preparation of complex face creams. These compound mixtures of drugs were not meant to be used in public, but rather as cleansing applications meant to restore and increase the luster of the face. That is, Ovid's skin creams were smeared on the skin with the hope of brightening the complexion and removing minor blemishes. In this sense, they were indeed medicines of the face (*medicamina faciei*), and were meant to enhance, once again, the natural beauty of the skin.

Ovid's work reveals much about the intended function and composition of compound skin cream mixtures. These complex combinations of drugs appear to have been used as skin cleansers; they were applied for a specific period of time and then rinsed off.²²

**"Disce age, cum teneros somnus dimiserit artus,
candida quo possint ora nitere modo.**

**"Let me show you how, when you first wake in the morning,
you face can be bright and fresh."²³**

²² "*Tempore sint parvo molli licet illita vultu, haerebit toto multus in ore color*": Though you keep this face-pack on for a short while only it will give you a fine complexion. Ovid *Medicamina Faciei* 97-8. Translated by Peter Green. The Latin *illita* (things smeared) indicates some sort of cream or lotion that was applied to the face before the application of actual facial cosmetics like rouge and eye-shadow. It was probably applied in the morning and washed off after a short period of time. Then the actual makeup was applied.

²³ Ovid *Medicamina Faciei* 51-2, translated by Peter Green.

The Latin *candida nitere* would seem to indicate either a “bright” complexion, or a white skin tone, which we would refer to today as being pale or fair skinned. The Romans valued lighter skin, and the desired effect of these creams appears to have been the production of white or pale facial skin. Ovid insists that anyone who follows his recipe will cause her own face to “shine” (*fulgebit*) with an obvious brilliance:

**“Quaecumque afficiet tali medicamine vultum
fulgebit speculo levior ipsa suo.”**

**“Any girl who uses a face pack according to this prescription
will shine brighter than her own mirror.”²⁴**

Again, the emphasis seems to be on either the radiant quality of the skin, or its white appearance. Both possibilities fit well with the Roman preoccupation with white makeup foundations as seen in Plautus, Ovid and Horace. Roman women preferred pale skin to the tan appearance of those darkened by the sun. In fact, white skin reflected the woman’s particular status within the Roman social hierarchy. It is doubtful that female peasants ever concerned themselves with lightening their faces; Cato and Varro seem showed little concern for these cosmetics, and may have left the topic out of their works because it was only relevant for urban life. It is difficult to conclude that cosmetics were not important in Roman rural settings, but our predominant sources all emerge from similar cosmopolitan backgrounds.²⁵

²⁴ Ovid *Medicamina Faciei* 67-8, translated by Peter Green.

²⁵ While it is true that Cato does not discuss cosmetics, it may be that he left the topic out of his work on agriculture because it was accompanied by moral considerations. The moral consideration of cosmetics can also be seen in Horace *Sermones* 2.3.28.

Should any imperfection tarnish one's shining complexion, Ovid knew of another cream that would do away with the unwanted blemish:

**"Addita de querulo volucrum medicamina nido
ore fugant maculas: alcyonea vocant."**

**"The spots on your face can be banished by means of a preparation
extracted from bird's nests, and known as halcyon-cream."²⁶**

The spots (*maculas*) he refers to were probably simple discolorations, pimples and blackheads, or any areas of the skin that contained varying levels of natural pigments. Continuity and symmetry were an important aspect of a woman's appearance, and the pale-white color of the skin desired by Roman women would have been easily besmirched by any unblended patches or discolorations. In order to prevent a spotted appearance, Ovid suggests the use of this special preparation. His halcyon cream may have been originally made in Greece, or it may have been given a Greek name for other unknown reasons.

In addition to the spot-removing halcyon cream, Ovid's *Medicamina Faciei* provides us with four recipes of what appear to be 'whitening' creams. The number and assortment of the ingredients are highly varied, but each is based on similar pharmaceutical elements: numerous solids are ground into powder and then added to a thick liquid base, which facilitates mixing and application of the drug. Because Ovid included specific weights for the ingredients, it is likely that he borrowed his material from particular medico-cosmetic texts, but it is also possible that he acquired the

²⁶ Ovid *Medicamina Faciei* 77-8, translated by Peter Green.

ingredients and weights for his poem from any of his contemporaries familiar with the application of cleansing creams.

Honey was the most common medium for this type of cosmetic.²⁷ The Romans probably used it in the production of facial applications because of its adhesive qualities, but it was also an excellent medium for drug delivery because of its bacteriostatic qualities; that is, honey is sterile and prevents bacterial growth.²⁸ Any cosmetic cream containing honey could be stored for extended periods of time without spoiling. To a honey base were added various botanicals and metals, after they had been rigorously pounded or ground at the mill. Several ingredients, like myrrh and frankincense were probably added for the sake of their strong aromas, but this was not their only role.²⁹ These aromatic resins may also have acted upon the skin to promote healing or cleansing of the superficial layers.³⁰ Myrrh and frankincense are resins secreted as a result of

²⁷ Ovid *Medicamina Faciei* 67, 82, 90.

²⁸ See G. Majno *The Healing Hand: Man and Wound in the Ancient World* (Cambridge, 1975): p.117. Here, Majno points out the success of many Mediterranean cultures in using honey as a drug because of its antibacterial qualities. Apparently, the hypertonicity of honey, which would kill any bacteria trying to grow in it, is augmented by an enzyme produced in the pharyngeal glands of the bee: "Honey is antibacterial for several reasons. The most obvious is a simple concentration effect: being extremely hypertonic, it draws water from the bacterial cells, causing them to shrivel and die. This mechanism works so well that an offering of honey, piously buried in Paestum in a sacred chamber 2500 years ago, never decayed and is recognizable to this day. But honey can prevent the growth of bacteria by an antibiotic mechanism...One of the active principles, inhibine, turned out to be an enzyme secreted by the pharyngeal glands of the bee: glucose oxidase (which converts glucose and oxygen into hydrogen peroxide and other products—hydrogen peroxide is a disinfectant)."

²⁹ Ovid *Medicamina Faciei* 83, 88, 91. Myrrh and frankincense are exceptionally common ingredients in ancient medical prescriptions. They were used in internal as well as external applications. They may also possess some antibacterial qualities. However, it was certainly much easier to endure the foul odor of drugs that had been mixed with them.

³⁰ Little has been written about the use and efficacy of these common drugs. For the last one hundred years, frankincense and myrrh have been used only in the production of incense, and have been largely ignored as potential medicinal substances.

injury, and most of the secondary metabolites of plants produced in response to injury possess antibacterial and antifungal properties.

Honey and various aromatic resins were the most harmless ingredients of Ovid's cosmetic recipes in the *Medicamina Faciei*. They are neither toxic nor do they seem to have adverse effects when applied externally. However, there was a far more sinister side to these 'whitening' creams: one recipe called for white lead (*cerussa*) and potash (*nitrum*), known chemically as lead carbonate and potassium hydroxide.³¹ White lead is a pigment used commonly as a base for white paint, and is highly toxic. Although it would be wrong to claim that Roman women poisoned themselves with facial applications of white lead, it is safe to say that they were certainly using *potentially* lethal substances in the production of their popular face creams.³² Potash, or Potassium hydroxide, is a bleaching agent that may have worked well to strip the exterior layer of cells from the skin. This would have made it an excellent cleansing agent, but it may also have worked well to neutralize any pigmentation or discolorations of the face. The Roman world may have used it to bleach out any unsightly spots or blemishes, but its long-term effects may have been grim.³³ Without concrete evidence drawn from modern scientific studies, it is difficult to conclude whether any of Ovid's recipes were either harmful or efficacious. At best, we can assert that his 'whitening' creams contained a

³¹ Ovid *Medicamina Faciei* 73.

³² Ovid's recipe calls for one ounce of white lead to be added to twelve pounds of other ingredients. This does not seem to be a significant amount of lead carbonate, but only trace amounts are needed to be toxic. It is also important to note that the white lead would need to be absorbed through the skin to be a serious threat. With such a small concentration it is likely that very little was actually absorbed.

³³ It is likely that long term exposure to a harsh bleach like potassium hydroxide would cause serious damage to the epidermis and dermis. Again, we must take into consideration its concentration and the time of exposure. Small amounts of potash given for short periods of time may be entirely harmless. There are no modern studies to support or refute the safety of potash use.

number of agents that appear to have directly affected natural skin pigmentation, but could have been potentially harmful when used over a period of time.

The plants found in these face cream recipes are equally as potent as their metallic counterparts. For example, Ovid recommends the use of narcissus-bulbs, which he says should be separated from their skins, ground on marble slabs and then added to the honey-medium.³⁴ The daffodil (*Narcissus pseudonarcissus*) contains strong alkaloids that cause severe indigestion and nervous system dysfunction when ingested.³⁵ If consumed in large enough quantities, these chemicals can cause complete paralysis and eventually death.³⁶ The strong neurotoxins found in the bulbs may have had a mild effect on the skin and underlying muscle of the women who used it as a facial cosmetic. That is, Roman women probably used this daffodil concoction as a means of temporarily paralyzing the muscles underlying the skin on their faces, thus forcing the subcutaneous muscles to relax and thereby decreasing the number and severity of naturally forming wrinkles; this particular cream was the ancient equivalent of our modern botox injection. Ovid's 'shining' or 'radiant' appearance was probably the result of such a rejuvenation of the skin. Roman women undoubtedly looked younger when the wrinkles around their eyes and mouths decreased in severity.

³⁴ Ovid *Medicamina Faciei* 63-66.

³⁵ Tyler et al. *Pharmacognosy* (Philadelphia, 1981): p.456. This combination of gastrointestinal disorder and nervous system dysfunction is caused by the phenanthridine alkaloids contained in the bulbs. Again, this type of chemical (or secondary metabolite) is generally present as a form of protection or immunity. These alkaloids probably taste horrible to troublesome insects and herbivores, and are likely to cause the same ill-effects as they do to humans. This discourages any sort of pesky tampering with the daffodil's precious bulb.

³⁶ Grieve *A Modern Herbal* (New York, 1931): p.246.

Perfumes and Unguents

The Roman world relied entirely on the fragrant oils and distillations produced by native and imported botanicals to make their own cosmetic fragrances. The ingredients required to make such perfumes could only be obtained from distant lands, and required trade with a number of exotic eastern territories including Persia, Syria, Arabia, India and possibly even China.³⁷ The demand for strong fragrances created a vast mercantile empire that actively employed armies of farmers, merchants, distillers, traders, artisans and salesmen.

Despite the fact that perfumes have been a stable trade-good for much of western history, Roman fragrances were fundamentally different from their modern counterparts. Their differences are primarily biochemical; delicate water or alcohol-based perfumes were never fashionable in Rome. Romans preferred heavy oil-based unguents (*unguenta*), which could be generously smeared over the surface of the body and gently massaged into the skin. Modern perfumes produce their scents by the short-lived process of evaporation, while Roman unguents provided a more lengthy exposure to fine odors by covering the body with a thick layer of heavily scented oils, which retained their fragrant components for much longer periods of time.

³⁷ On the foreign import of perfumes see: Ovid *Fasti* 1.340, 3.735, 4.570; Horace *Epodes* 13.9; *Odes* 2.11.16; Tibullus 2.2.1-4; Propertius 3.13.7. Ovid *Metamorphoses* 15.391-407, mentions several spices that come from the East. The economic value of spices in antiquity is virtually inestimable. Majno says: "The many roles of *aromata* in human affairs crated a near-global network of commercial interests and led eventually to an Arabian monopoly, which may have had far-reaching effects on all cultural exchanges between ancient East and West...Look also at the strategic position of the Arab merchants, placed naturally as middlemen between Europe, Africa and the East. The 'hapiness' of Arabia depended as much on this situation as on the fabled trees. Something had to be done to protect this advantage...The Arabian merchants therefore chose the psychological approach...they made up tall tales about the tremendous risks they had faced in order to obtain these goods" Majno (1975):p.225.

Myrrh and spikenard were among the most common perfumes in antiquity, but there was a wide variety of botanical oils and resins used in perfumery.³⁸ Ovid mentions a number of these popular plant-derived products in his beautiful description of the death of the phoenix, a strange self-resurrecting bird, which builds a nest made of fragrant plants to facilitate its magical physical transformation. In this story, Ovid includes references to frankincense, amomum (either Indian cardamom or East-Asian turmeric), cassia, nard, cinnamon, and myrrh.³⁹ Each of these exotic spices was valued for its characteristic aromatic qualities, and was used for special social occasions, religious rites, and funerary practices as well as personal adornment.

Perfumes also seem to have been familiar to members of Plautus' audience:

Leaena: "...salve, anime me, Liberi lepos.
 Ut veteris vetus tui cupida sum.
 Nam omnium unguentum odor prae tuo nautea est,
 tu mihi stacta, tu cinnamum, tu rosa, tu crocinum et casia es, tu telinum..."

Leaena: "Aha, soulmate, here you are!
 Sweet grace of Bacchus, be mine!
 I'm as well-aged as you, so we make a matched pair,
 and my love is steady and true;
 the sweetest perfume ever borne on the air is swamp gas compared to you.
 You're myrrh to me, cinnamon, aroma of rose, my Bag Balm, my Oil of Olay!"⁴⁰

³⁸ For resins, gums and other aromatics from the East, see: Majno (1975): pp.210-214. On Myrrh itself: "Myrrh is tapped from a scraggy, unfriendly tree of 'crippled appearance,' with a grey-white bark, and usually gathered from thickets not over three meters high. It is leafless most of the year, and its rough branches end in thorns...the word *myrrh* itself comes from the Hebrew and Arabic *murr* for 'bitter.' p. 212.

³⁹ Ovid *Metamorphoses* 15.391-407. His spices include frankincense (*turis lacrimis*), amomum (*amomi*), cassia (*casias*), spikenard (*nardi*), cinnamon (*cinnama*) and myrrh (*murra*). Frankincense, cassia and myrrh came principally from Arabia, nard from Syria, and amomum and cinnamon from southern and eastern Asia.

⁴⁰ Plautus *Curculio* 99-103, translated by Henry Taylor. Bag Balm and Oil of Olay are modern cosmetics. Crocinum and telinum are literally saffron oil and ointment of fenugreek. The translator was trying to convey the common nature of these drugs by rendering them as widely used modern cosmetics.

The common man in Rome must have been regularly exposed to an array of scents and aromas of spices being sold in the marketplace and worn by passersby on the streets.

Indeed, it is safe to say that perfumes were an omnipresent factor of everyday Roman life. Plautus' condemnation of 'fragrant excess' says much about the suspected prevalence of perfumes and their fashionable uses:

**"Quia ecaster mulier recte olet, ubi nihil olet.
Nam istae veteres, quae se unguentis uncitant, interpoles
vetulae, edentulae, quae vitia corporis fuco occulunt,
ubi sese sudor cum unguentis consociavit, ilico
itidem olent, quasi cum una multa iura confudit cocus.
Quid olant nescias, nisi id unum, ni male olere intellegas."**

"...a woman smells right when she doesn't smell at all. Why those ancient dames that pickle themselves in perfume, make-up crones without any teeth, that try to paint away their bodily blemishes—as soon as their perfume and perspiration come together, they smell the same as when a cook combines a lot of sauces. You can't tell what they smell of, but you're sure of one thing—they smell vile."⁴¹

Plautus' criticism leads us to the conclusion that perfumes and other cosmetics were immensely popular among women, perhaps most especially among older women. His blatant disgust for the sickening odor of strong perfume mixed with sweat tells us much about the difficult issues of personal hygiene found in pre-modern societies, where daily bathing was not typically practiced. The Romans, like many cultures, may have used fragrant botanicals to mask their own body odor. Myrrh, nard, and other Roman spices, are all strikingly potent, and can even be considered overwhelming to the senses. In fact, they were probably used for this very reason; strong fragrances were required to overcome the powerful odor of unwashed human skin. Roman unguents almost certainly

⁴¹ Plautus *Mostellaria* 273-8, translated by Paul Nixon.

served the dual purpose of neutralizing one's natural smell with their thick oils, while exuding potent fragrances that would entirely dominate the olfactory nerves of anyone close enough. That is, unguents performed the valuable task of masking the more unpleasant aspects of the Roman 'physical' reality, and thereby facilitated social interactions of a more intimate nature.

Despite his criticism of "pickled" old women, Plautus would never wanted his audience to believe that Roman perfumery was solely a feminine art. In fact, much of Latin literature shows us that perfumes were well suited to masculine gods and male mortals alike.⁴² Once again, the context is satirical, but Plautus' *Casina* presents us with the figure of the lustful male seeking to impress the object of his desire with fancy perfume:

Lysidamus: "Respice, o mi lepos."

Cleostrata: "Nempe ita ut tu mihi es.

Unde hic, amabo, unguenta olent?"

Lysidamus: "Oh perii, manifesto miser

Teneor. Cesso caput pallio detergere?

Ut te bonus Mercurius perdat, myropola, quia haec mihi dedisti."

Cleostrata: "Eho tu nihili, cana culex, vix teneor quin quae decent te dicam,

senecta aetate unguentatus per vias, ignave, incedis?"

Lysidamus: "Pol ego amico dedi cuidam operam, dum emit unguenta."

Lysidamus: "Please look at me, O darling mine!"

Cleostrata: "Right! Just like you're mine. Excuse me, love, but where is that smell coming from?"

Lysidamus: "Damnation! I'm afraid she's got me red-handed! I'd better wipe it off on my cloak. Mercury, be a good chap and destroy that perfumer who gave me this stuff."

Cleostrata: "Why, you lecherous old louse! I'm almost ashamed to tell you what I think of you. At your age, going about town all perfumed up, you worm!"

⁴² For example, Hymenaeus is pictured with perfumed hair: See Ovid *Heroides* 21.161. Also, Tibullus presents us with a picture of divine figures using perfumes: 1.7.51.

Lysidamus: “Gosh, I was only assisting a certain friend of mine in choosing a scent.”⁴³

Cleostrata believes it is inappropriate for such an old man to be acting like a young lover, and mocks his attempt to beguile her with his strong perfume. This would seem to indicate that young Roman men used fragrances as a weapon of courtship. They clearly used perfumes as a means of attracting young women, and may have associated a strong scent with the victory of sexual conquest. Cleostrata is not surprised by Lysidamus’ use of powerful unguents, but attacks Lysidamus’ social impropriety. Elsewhere, Plautus presents a certain “perfumed lady-killer” (*cincinmoechum unguentatum*), another typical randy male seeking the affection of a woman while employing the use of powerful unguents.⁴⁴

Perfumes were made by special artisans known in Latin as an *unguentarii*. The name was obviously derived from the product these craftsmen produced, namely *unguentum*, an ointment or unguent. These fragrant salves were probably called *unguenta* because they were considered to be a ‘fatty’ substance, known as an ‘*ungen*’ in Latin. Cato the elder mentions the *unguentarius* in his *De Agri Cultura* when he provides a specific recipe meant to instill wine with a sweet aroma.⁴⁵ He claims that scented plants and aromatic herbs can be obtained from ‘perfumers’ and further implies that such substances can be acquired without difficulty. The forum was undoubtedly filled with dealers in fragrant plants and spices who could recommend good wine-

⁴³ Plautus *Casina* 235-41, translated by Richard Beacham.

⁴⁴ See Plautus *Miles Gloriosus* 922, translation of “perfumed lady-killer” by Paul Nixon.

⁴⁵ Cato *De Agri Cultura* 113. Nard was also used to preserve wine. It may have acted to prevent the conversion of alcohol to acetic acid. For nard as a possible preservative, see Plautus *Miles Gloriosus* 822.

sweetening drugs. Cato's *unguentarius* was probably quite similar to Plautus' *myropola*, a Greek name used to describe the same profession—the myrrh sellers. In his *Trinummus*, Plautus places the perfumer (*myropola*) in the ranks of the fish-seller, butcher, baker, cook and vegetable-vendor, all forum-frequenting merchants who sold their wares in common marketplace stalls.⁴⁶ Horace was much less well disposed to perfume-sellers. He clearly despised the trade and considered it to be on par with pimps and parasites. In his *Satires*, he claims that the *unguentarius* was one of many members of the wicked mob (*turba impia*) who thronged the crowded streets of the city.⁴⁷ That is, Horace places no trust in crafty salesmen who dotted the city's landscape, and considered the *unguentarius* to be just another money-hungry scoundrel. The shop where Horace's greedy *unguentarius* sold his goods was known appropriately as an *unguentaria*. Varro tells us that this name was logically derived from the product itself, in the same manner as the words for wine-shop (*vinaria*) and chalk-shop (*cretaria*) derive respectively from wine (*vinum*) and chalk (*creta*).⁴⁸

Unguents purchased from the *unguentarius* at his shop in the forum were used to cover the skin and even the hair. They were presumably applied to the skin in generous amounts, and left there for days at a time until the opportunity for a bath—or some form of skin-washing—was made available. It is likely that Romans covered their skin with scented oils in place of frequent bathing, and liberally used these oils to mask their body odor while moistening the skin. Spikenard was applied to the hair on festive occasions,

⁴⁶ Plautus *Trinummus* 408. See also *Casina* 226.

⁴⁷ Horace *Sermones* 2.3.228.

⁴⁸ Varro *De Lingua Latina* 8.55.

and came to be closely associated with drinking and gaiety.⁴⁹ This oily nard was spread (*unctus*) throughout the hair, and must have given a glorious sheen to the locks of revelers and banqueters. Ovid warns his reader of the elegant suitor; nard may drip from his well-placed hair, but he will prove to be a liar nonetheless.⁵⁰ Indeed, it appears as if it was more fashionable for men to use nard than women. Tibullus even presents a divine spirit as a chic hair-anointing unguent-user:

**“Huc ades et Genium ludis Geniumque choreis
concelebra et multo tempora funde mero;
illius et nitido stillent unguenta capillo,
et capite et collo mollia sarta gerat.
Sic venias hodiernae; tibi dem turis honores,
Liba et Mopsopio dulcia melle feram.”**

“Then hither come, and do honour with sports and do honour with dances to the Birth-sprite, and let wine in plenty bathe his temples. From his glistening hair let the ointment drip, and on his head and neck let soft garlands hang. Thus come to us today, Birth-spirit; and I will honour thee with incense and bring the cakes sweetened with honey from the land of Mopsopus.”⁵¹

The god, or *Genius*, was not above using cosmetics to beatify his hair. This figure of a perfumed deity does not seem to raise any questions of effeminacy; there are no references to the god's masculinity, and his perfumed unguent does not give him any feminine attributes. That is, there is nothing feminine or effeminate about wearing perfume in antiquity. It was probably customary for men to keep their hair oiled, or at least to use some form of perfumed oil during social occasions. Again, it must be

⁴⁹ Horace *Odes* 2.11.16.

⁵⁰ Ovid *Amores* 3.433-44.

⁵¹ Tibullus 1.7.49-54, translated by J. P. Postgate (Rev. by G. P. Goold).

emphasized that Roman unguents were used primarily to cover up underlying odors.

Proper hygiene and skincare were often difficult in antiquity, but scented unguents

certainly met the need for improved standards of public presentation.

Cosmetics and Sexuality

In his *Fasti*, Ovid sets the background for his explanation of the use of opium on the wedding night by discussing the deceptive nature of human courtship:

**“Discite nunc, quare Fortunae tura Virili
detis eo, calida qui locus umet aqua.
Accipit ille locus posito velamine cunctas
et vitium nudi corporis omne videt;
ut tegeat hoc celetque viros, Fortuna Virilis
preaestat et hoc parvo ture rogata facit.
Nec pigeat tritum niveo cum lacte papaver
sumere et expressis mella liquate favis;
cum primum cupido Venus est deducta marito,
hoc bibit: ex illo tempore nupta fuit.”**

“Learn now why ye give incense to Virile Fortune in the place which reeks of warm water. All women strip when they enter that place, and every blemish on the naked body is plain to see; Virile Fortune undertakes to conceal the blemish and to hide it from the men, and this she does for the consideration of a little incense. Nor grudge to take poppy pounded with snowy milk and liquid honey squeezed from the comb; when Venus was first escorted to her eager spouse, she drank that draught: from that time she was a bride.”⁵²

For the paltry price of a bit of incense, the goddess assists young lovers by masking the spots and blemishes imposed by nature. According to Ovid, men are fooled into believing that their future wives are more attractive than they appear. This carefully contrived deception is a brilliant allusion to the use of cosmetics among Ovid’s

⁵² Ovid *Fasti* 4.145-154, translated by Sir James Frazer. This description contains elements of religious ceremony as well as what may be the activities of Roman bathers.

contemporaries. For this reason, the passage is neatly framed with specific drugs that were typically used to conceal something unpleasing. That is, Ovid's use of frankincense in the passage acts—by indirect association—to enhance the image of drugs as an important means of sexual deception. This trickery illustrates the deep connectedness of drugs and human sexual attraction. In antiquity, cosmetics clearly facilitated the smooth interaction of the opposite sexes, and insured some degree of procreative cooperation. Drugs were so closely associated with human intimacy that they were eventually considered to hold sway over reproduction itself:

“ ‘Non’ inquit ‘verbis cura levanda mea est.
 Si pater est factus neglecto coniugis usu
 Iuppiter et solus nomen utrumque tenet,
 cur ego desperem fieri sine coniuge mater
 et parere intacto, dummodo casta, viro?
 Omnia temptabo latis medicamina terris...’
 ‘Quod petis, Oleniis’ inquam ‘mihi missus ab arvis
 flos dabit: est hortus unicus ille meis.
 Qui dabat, “hoc” dixit “sterilem quoque tange iuvenecam,
 mater erit.” Tetigi, nec mora, mater erat.
 Protinus haerentem decerpsi police florem:
 tangitur et tacto concipit illa sinu.”

“‘My grief,’ quoth she, ‘is not to be assuaged with words. If Jupiter has become a father without the use of a wife, and unites both titles in his single person, why should I despair of becoming a mother without a husband, and of bringing forth without contact with a man, always supposing that I am chaste? I will try all the drugs in the wide world...’ ‘Thy wish,’ quoth I, ‘will be accomplished by a flower that was sent me from the fields of Olenus. It is the only flower of the kind in my garden.’ He who gave it me said, ‘Touch also with this a barren heifer; she will become a mother. Straightway I plucked with my thumb the clinging flower and touched Juno, and she conceived when it touched her bosom.’”⁵³

⁵³ Ovid *Fasti* 5.238-43; 251-256, translated by Sir James Frazer.

This drug was so powerful that it was able to accomplish the very act of insemination.⁵⁴ That is, for Ovid's audience, drugs became a symbol of the act of procreation; they were the physical manifestations of the innate drive to reproduce, and possessed marvelous symbolic powers. This close association of drugs with sexual attraction and intimacy within the myth enabled the Roman audience of the Republic to accept the potency of cosmetics—which are, of course, just drugs.

Horace also recognized the link between cosmetics and sexual potency; he feared for his safety when he discovered Canidia's pharmaceutical prowess.⁵⁵ In one poem he describes her as a shop of Colchian drugs (*venenis officina Colchicis*).⁵⁶ In this way he associates his female lover's power with her understanding of drugs, which certainly applied to her familiarity with cosmetics as well as actual Colchian poisons. Horace's interest in the figure of the witch/lover has been beautifully illustrated by E. Fraenkel:

“Horace's Canidia, whether or not she had a prototype in real life, is an exiting figure. The sphere to which she belongs provides ample opportunity for bold invention and impassioned language. Witches and their doings, in ancient as in modern times, are bound to stir the imagination. In the Hellenistic and the Roman world the enlightened might laugh at such crude ‘superstition’, but its attraction

⁵⁴ This is, of course, just a myth. It is unlikely that the Roman audience attempted to make the same association with actual events surrounding human reproduction.

⁵⁵ The link between witches and cosmetics may be deeper than suspected: “Ancient commentators assert that Canidia (from *canus*, gray) is a pseudonym for a certain Gratidia (from *gratus*, pleasing), who was a perfume dealer from Naples.” Mulroy (1997): p.207.

⁵⁶ Horace *Epodes* 17.35. Fraenkel introduces this poem by placing it within its Greek context: “Epode XVII, placed at the end of the book on account of its metrical form, is an ingenious, if somewhat laboured, product. It was a lucky thought to deliver, apparently in good earnest, a palinode in which the speaker in fact confirms the worst things he had said about Canidia, with the result that the sorceress, in an outburst of rage, replies and herself boasts of all the crimes with which she had been charged. The goddess Helen, who was addressed in the first (palinode) ever composed, forgave, and made her brothers forgive, the repentant sinner (42-44), but for the ungodly Canidia it is fitting to remain relentless to the end. Horace's recantation leaves no doubt that he is all the time speaking with his tongue in his cheek.” Fraenkel (1980): pp.64-5.

remained strong all the same. Horace has made full use of the fantastic element and has carefully mingled all sorts of gruesome ingredients.”⁵⁷

It is most likely that the typical Roman woman’s knowledge of drugs was confined to the use of makeup, unguents and perhaps a few herbal remedies, rather than true poisons. That is, Ovid and Horace imply that Roman men believed women were deceitful and used their cosmetic skills to attract them. Catullus recognized the allure of cosmetic pharmacy:

**“Sed contra accipies meros amores
seu quid suavis elegantius vest:
nam unguentum dabo, quod meae puellae
donarunt Veneres Cupidinesque,
quod tu cum olfacies, deos rogabis,
totum ut te faciant, Fabulle, nasum.”**

“But on the other hand you shall have from me love’s very essence, or what is sweeter or more delicious than love, if sweeter there be; for I will give you some perfume which the Venuses and Loves gave to my lady; and when you snuff its fragrance, you will pray the gods to make you, Fabullus, nothing but nose.”⁵⁸

The powerful potential of the unguents given by Venus to womankind force the poet to forsake everything. Once again, the attractive force of love itself is directly associated with a drug—here specifically a cosmetic—and this drug is placed in the hands of a woman. Catullus, Ovid and Horace each reflect the image of lover/wife as a potent drug-using deceiver of mankind.

Cosmetics and Public Appearances

⁵⁷ E. Fraenkel, *Horace* (Oxford, 1980): p.63. Fraenkel further attempts to establish the Hellenistic literary models upon which Horace’s witch figure was built, p.64.

⁵⁸ Catullus *Carmina* 13.9-14, translated by F. W. Cornish (Rev. by G. P. Goold).

Makeup and perfumes disguise that which is deemed offensive by those with whom we interact and have close contact. In antiquity, creams and paints covered the annoying spots that offended the eyes, while unguents concealed the odors that perturbed the nose. In both cases, cosmetics facilitated social interactions and made the oftentimes unpleasant reality of existence a bit more bearable. In this way, perfumes and makeup functioned as ‘civic drugs’ and were indeed communal medicines. Frequently in Roman literature we find cosmetics used in public gatherings such as banquets, festivals, religious observations, and even funerals. They were ranked with vital goods like wine and oil, and were frequently associated with the most memorable events of life. For example, Horace places unguents in the midst of life’s ephemeral joys, those short-lived sources of happiness in an all-to-brief existence, and instructs his reader to enjoy them before the fates bring about his demise.

**“Aequam memento rebus in arduis
servate mentem, non secus in bonis
ab insolenti temperatam
laetitia, moriture Delli...
Huc vina et unguenta et nimium breves
flores amoenae ferre iube rosae,
dum res et aetas et sororum
filia trium patiuntur atra.”**

**“Dellius, all must die: be sure to retain
an equable mind in vexation
avoiding also intemperate joy
at advantages gained...
With us, command all perfumes, wines
and the too brief spell of the rose
while affairs and times
and the Fates’ black thread allow.”⁵⁹**

⁵⁹ Horace *Odes* 2.3.1-4; 13-15, translated by W. G. Shepherd.

The message is clear: eat, drink, and enjoy the unguents, for tomorrow we die. Horace reflects an awareness of the social impact of cosmetic drugs on Roman society, as would many Romans of his time, and communicated this subconscious perception to his reader through the subtle allusions and direct references to perfumery found in his poetry.

Celebratory drinking was never a solitary act. Perfumes were closely associated with drinking bouts and collective revelry in both Greek and Roman antiquity. Unguents and special fragrances are even presented as important prerequisites for successful banquets and joyous public celebrations.⁶⁰ Latin poetry of the late Republic and early Empire reflects this association vividly and emphasizes the close relationship of viniculture and perfumery. For Tibullus, celebration and sweet smelling spices are nearly inseparable:

**“Dicamus bona verba: venit Natalis ad aras:
quisquis ades, lingua, vir mulierque, fave.
Urantur pia tura focis, urantur odors
quos tener e terra divite mittit Arabs.
Ipse suos Genius adsit visurus honores,
cui decorent sanctas mollia sarta comas.
Illius puro destillent tempora nardo,
ille satur libo sit madeatque mero...”**

**“Let naught but good words pass our lips: the Birthsprite cometh to the altar.
Whoso art with us, man or woman, peace! Let its fire burn the holy incense, burn
the spices which the soft Arabian sends us from his wealthy land. Let the Genius
come to view the offering to himself. Soft garlands must deck his hallowed locks; his
temples must drop with spikenard pure; he must be filled with honey-cake and tipsy
with neat wine.”⁶¹**

⁶⁰ See Horace *Odes* 3.14.17; Catullus *Carmina* 13. In both poems the authors exhort someone to bring unguents or perfumes along with wine and even women in order to begin a celebration. In both cases, the presence of a perfume seems to be a prerequisite for the party.

⁶¹ Tibullus 2.2.1-8. Translated by J. P. Postgate (Rev. by G. P. Goold).

Garlands, incense, perfume, confections and strong wine were the basic components of a banquet or festive celebration. Tibullus recognized the value of perfumes and their relevance for human interaction. Horace was also unashamed to admit that he wasted many hours with a fine wine in his hand and scented perfumes in his hair.⁶² His rallying call to the banquet was "Pour out perfumes from generous phials!"⁶³ Even Lucretius, in the midst of serious philosophical musings, associated fragrant preparations with the spirit of revelry: "Banquets are prepared with magnificent trappings and rich fare, entertainments, bumpers in abundance, ointment (*unguenta*), garlands, festoons..."⁶⁴ Alcohol, unguents and revelry were also considered inseparable by Plautus, who frequently unites them with sexual conquest as well.⁶⁵ Whether or not he actually believed that they were signs of excessive luxury, as he implies in the *Stichus*, is difficult to say, but he certainly believed his audience understood the value of their association with banquets and festive occasions.⁶⁶ After all, the Roman stage itself was covered with saffron, one of antiquity's most exquisite perfumes.⁶⁷

Frivolous entertainments were not the only public venues for the use of perfumes.

Religious ceremonies relied upon unguents to add a certain dignified air to their

⁶² Horace *Odes* 2.7.5-8.

⁶³ Horace *Odes* 2.7.22-3. Translated by C. B. Bennett. Also, it is important to note that Horace was commenting on the strength of the wine involved, and the juxtaposition of fragrances and wine: "Fill the smooth Egyptian cups with Massic, the wine of oblivion. Sprinkle scent from roomy couches." (2.7.21-3) Translated by D. Mulroy.

⁶⁴ Lucretius *De Rerum Natura* 4.1131-2. Translated by W. Rouse (Rev. by M. Smith).

⁶⁵ See Plautus *Bacchides* 1181; *Pseudolus* 1265; *Stichus* 380-83.

⁶⁶ Plautus *Stichus* 383.

⁶⁷ Horace *Epistles* 2.1.79.

proceedings. Varro explains, in wonderful detail, a religious component of the of the Roman census:

“Praeco in templo primum vocat, postea de moeris item vocat. Ubi lucet, censor(es) scribae magistratus murra unguentisque unguentur. Ubi praetors tribunique plebei quique illicium vocati sunt venerunt, censores inter se sortiuntur, uter lustrum faciat. Ubi templum factum est, post tum conventionem habet qui lustrum conditurus est.”

“The herald calls them first in the sacred precinct, afterwards he calls them likewise from the walls. When it is dawn, the censors, clerks, and the magistrates are anointed with myrrh and ointments. When the praetors and the tribunes of the people and those who have been called to the invitation meeting have come, the censors cast lots with each other, as to which one of them shall conduct the ceremony of purification. When the sacred precinct has been determined, then after that he who is to perform the purification conducts the assembly.”⁶⁸

Here, the state officials, including the censors and other civic officers, conduct a series of rituals that culminate in a cleansing or lustration. Each is anointed with myrrh and other perfumes (*unguentibus*). The language is highly specific, and clearly shows that the city officials were each smeared with oily fragrances. The degree to which these aromatic cosmetics were applied is unknown, but there is no precedent for anything other than a liberal application of perfumes to the skin and hair.⁶⁹ In addition to their use in religious festivals, unguents were considered to be suitable as direct offerings to the gods.⁷⁰ In summary, perfumed cosmetics were a useful part of religious observances and could be used in official ceremonies and specific rites.

⁶⁸ Varro *De Lingua Latina* 6.87, translated by R. Kent.

⁶⁹ The ‘anointing’ of these officials can not be confused with our modern understanding of the medieval Christian practice of anointing, which entailed nothing more than a slight daubing of a small measure of unguents on the forehead. Roman ‘anointing’ is the use of unguents in the most literal sense of the word.

⁷⁰ Plautus *Asinaria* 803.

The same unguents that served the living so well were also used in burial rites and offered to the dead. Ovid tells us that balsam was spread on corpses before funeral rites were conducted. He further says that unguents, like tears of sorrow, were poured out as offerings to the dead: "*mixta bibunt molles lacrimis unguenta favillae*/the brittle ashes of the body drink in the unguents mixed with the tears of the living."⁷¹ The practice of smearing aromatic oils on a corpse before incineration was undoubtedly the result of common-sense considerations.⁷² Due to the bacterial contents of the digestive tract, dead bodies are quick to stink, and ancient funeral rites often took place a number of days after the death of the individual. Strong perfumes undoubtedly removed, or at least sufficiently covered, the stench of death and thereby facilitated proper funeral preparations and dignified viewings of the deceased. In this case, cosmetics once again fill the important role of hiding the less appealing aspects of human existence. Perfumes enabled the living to approach the dead publicly. Like makeup, they softened the blow to the senses caused by imperfections and indecency. Adorning the dead with perfumes and offering unguents to the shadows of the recently departed was a common courtesy, and as Propertius show us, came to be a common practice. In one of his poems, the ghost of his former lover Cynthia criticizes him for not providing her with a proper funeral:

**"Cur ventos not ipse rogis, ingrate, petisti?
Cur nardo flammae non oluere meae?
Hoc etiam grave erat, nulla mercede hyacinthos
inicare et fracto busta piare cado?"**

⁷¹ Ovid *Fasti* 3.561; *Epistulae Ex Ponto* 1.9.53, my translation.

⁷² See Majno (1975): p.208. He claims that funerary rites were the result of associations of bad smells with evil or ill-fortune. He also says: "The spiritual role of perfumes is bound up with sacrificial fires. It was smoke that carried aloft the fragrance of man's gifts to the gods. In fact, the word perfume comes from *per fumum*, 'by smoke.' Incense was the perfect gift to the gods, because it was not shared by man, being consumed by fire to the last grain."

“Why, ungrateful man, did you not call the winds to fan my pyre? Why was my funeral fire not perfumed with spice? Was it then too much to cast hyacinths upon me, no costly gift, and to hallow my grave with wine from a shattered jar?”⁷³

The basic elements of a funeral included the use of spices, or ointments, which Propertius obviously failed to supply. Here, *nardum* must refer to spikenard, and was probably used as a liquid offering to the shade of the departed. It may have been poured directly on the flames of the pyre as the poem indicates, but it is more likely that Propertius used poetic license here to make reference to the process of anointing of the body with perfumes before incineration. That is, the flames would have consumed the perfume along with the body, in a sort of funerary ‘offering.’ If this was truly the author’s intent, Cynthia’s criticism takes on an even more vicious sentiment, for, without the application of funerary unguents, it is likely that her body was too offensive to be viewed or visited by mourners. Without perfumes, Cynthia’s body would not have undergone the same sort of grieving process as other corpses and may have been more rapidly buried.

Dido, another infamous lover and disgruntled shade, ended her life in the most public of ways. Her suicide was the greatest show-piece of Roman mythology; in the midst of her own palace, with hundreds of gods and spectators as witnesses, she ended her cruel existence in a magnificent blaze of incendiary glory. This display is important because it reinforces the value of drugs within the public spectacle. That is, drugs in Rome acted to disguise the unseemly and bring legitimacy to the doubtful. Before Dido actually used any drugs in her theatrical death scene, she set the stage by erecting a pyre

⁷³ Propertius *Elegiae* 4.7.31-4, translated by G. P. Goold.

and decorating in a manner that was suited to a public sacrifice⁷⁴ With the gods as her audience, Dido proceeded to validate and sanctify her forthcoming self-sacrifice by chasing away any religious 'blemishes' with her magical drugs. That is, Dido called upon her wonderworking medicines to balance the irreligious aspects of her human sacrifice. She successfully used poisons and drugs as any Roman woman would skillfully employ the art of cosmetics to disguise any unflattering mark or unpleasant odor:

**"Falcibus et messae ad lunam quaeruntur aenis
pubentes herbae nigri cum lacte venena;
quaeritur et nascentis equi de fronte revolsus
et matri praereptus amor...
testatur moritura deos et conscia fati
sidera; tum, si quod non aequo foedere amantis
curae numen habet iustumque memorque, precatur."**

"She also sought out potent herbs with a milk of black poison in their rich stems and harvested them by moonlight with a bronze sickle. She found, too, a love charm, torn from the forehead of a new-born foal before the mare could bite it off..calling before she died to gods and stars to be witness to her fate a praying to whatever just and mindful power there is that watches over lovers who have been betrayed."⁷⁵

Dido used drugs to validate her selfish act of self-murder; although she did not actually use the drugs, she gathered them as a theater prop for the sake of the spectacle of her death. Virgil's audience expected Roman women to flee for protection to the long-

⁷⁴ Dido prepares for her suicide as if she were preparing a stage for a scene from a drama. Virgil presents these preparations with great dramatic effect. *"At regina, pyra penetrati in sede sub auras erecta ingenti taedis atque ilice secta, intenditque locum sertis et fronde coronat funerea; super exuvias enseque relictum effigiemque toro locat, haud ignara future. Stant area circum tonat ore deos..."* But the queen knew what the future held. As soon as the pine torches and the holm-oak were hewn and the huge pyre raised under the open sky in the very hear of the palace, she hung the place with garlands and crowned the pyre with funeral branches. Then she laid on a bed an effigy of Aeneas with his sword and everything of his he had left behind. There were altars all around and the priestess with hair streaming called with a voice of thunder upon three hundred gods..." *Aeneid* 4.504-10, translated by David West.

⁷⁵ Virgil *Aeneid* 4.513-16; 19-21, translated by David West.

established practices of cosmetic deception, and Dido as a result gathers potent toxins because she is expected to do so. After all, she was a woman in a position of tremendous authority. Therefore, it seems powerfully logical for Virgil to depict her 'painting over' the true face of her shame suffered by Aeneas' betrayal. All cosmetics are drugs, and Dido's collection of drugs would not have been distinguished from the collection of plants used to make face creams and perfumes. And so, her drugs may have been cosmetics; by collecting them she hoped that an application of makeup would reveal her death to be something more significant than a desperate suicide. Indeed, Virgil's audience may have perceived her reliance upon drugs and deception as stereotypical feminine traits. Like Dido, Roman women used makeup in public setting to protect themselves from close scrutiny.

Conclusion

Cosmetics, including makeup and perfume, were used in the Roman world to pacify the senses. Skin creams and powdered dyes were made from common plants found in the marketplace, and were used to cover skin imperfections. Some applications were used as cleansers rather than face paints, and were therefore meant to be used in private. Two common forms of makeup were white lead and potash, and both were potentially quite harmful. Perfumes were made from aromatic spices that were ground up and combined with oils to make unguents. These were then spread over the surface of the skin, and could have been used for extended periods of time. Unguents masked the unpleasant smell of one's own body odor, and were used on the skin and hair by both

sexes. Nard and myrrh, both eastern spices, were perhaps the most common perfumes in antiquity.

In much of Roman literature, there is a distinct association of cosmetics with feminine power and sexuality. Women are often portrayed as the wielders of dangerous poisons, crafty deceivers of mankind. Cosmetic drugs were viewed then as a tool of deception by prominent Roman poets, but their value was never openly disputed. Cosmetics enabled the Roman world to function more smoothly as a result of their ability to hide anything unseemly. Makeup and perfumes were often used at public functions, including banquets, religious ceremonies and funerals, where they served to smooth over the rough edges of human interactions. It is difficult to measure or quantify the impact of cosmetics on the world of antiquity, but makeup and perfumes escaped the notice of no single Republican author. Perhaps the easiest way to measure the value of cosmetics in any epoch of human history is to consider their impact on surviving written sources.

Majno struggled with a consideration of the significance of perfumes in history:

"It is difficult to grasp the importance of perfumes in the history of mankind. More than a luxury, they have been one of the basic necessities of life. In ancient Egypt, around 1180 B.C., laborers on a necropolis went on strike because the food was bad and 'we have no ointment.' In the Old Testament, 'ointment and perfume rejoice the heart.' Good and bad smells have always enjoyed the loftiest associations: Good and Bad, God and the Devil. Part of Alexander's greatness, according to tradition, was his personal fragrance; and I have before me a list of Christian saints who smelled good, either alive or dead; it is thirty-five pages long."⁷⁶

Perhaps cosmetics can be viewed as a subspecialty of pharmacy, but even this distinction is largely artificial, for, the Roman world never distinguished between the use of drugs and cosmetics. Eye-colors, skin creams, cleansers and unguents were all products of

⁷⁶ Majno (1975): p.207.

botanical engineering; they were gifts of nature, manipulated by the human mind to serve mankind. Whether they served to adorn the living or the dead, cosmetic drugs permeated all aspects of life in antiquity and profoundly influenced human history.

Conclusion

Roman pharmacy contains some of the most exciting aspects of daily life in antiquity and abounds with intrigue and excitement. I have tried to show the reader some of the more sensational aspects of the history of pharmacy in order to call attention to a single important point: drugs so saturated the fabric of Roman society that their presence can be detected in the writings of almost every Republican author. The practice of pharmacy was the societal fingerprint of Rome's affinity for botanical intoxication—be it medicinal, homicidal, sexual or cosmetic.

I have argued for several reasons for the Roman preoccupation with drugs. The art of pharmacy provided a welcome means of defending against the loss of property and labor potential on large estates and small farms. Without herds and slaves to work the large *latifundia* of the mid- and late Republic, the economy of Rome would doubtlessly have suffered. The expert drug knowledge of medical artisans helped to ensure that these large farming estates continued to flourish. As urban populations began to expand, and recurrent infectious disease came to characterize crowded city life, again, the Roman world turned to the aid of the *medicus* and his many botanical tools to defend the city against potentially devastating plagues. That is, drugs were instrumental in maintaining the economic expansion and demographic evolution of the Roman people.

Pharmaceutical substances met the needs of both urban and rural communities, and helped to guarantee the survival and advancement of Roman society.

The Romans were also preoccupied with drugs because of their lethal potential. Botanical poisons were used throughout the Republic to remove unwanted political enemies. The ease with which drugs could be used as murder weapons perpetuated their

use as tools of murder. Poisons were the weapon of choice for the conspirator as well as the impatient heir, and in this way drugs became a successful means for self-advancement. In some ways, the use of poisons to kill political opponents and remove social superiors was merely an attempt to ensure one's own survival, and therefore, the Romans responded to the threats of their contemporaries by once again relying on the use of drugs as a means of self-preservation. In fact, poisons may have actually helped to prevent public violence by quietly fulfilling aristocratic desires to defend positions of power and wealth.

Perhaps the least sensational—but certainly the most visible—use of drugs in Republican Rome involved the application of cosmetics. Perfumes, foundations and colored powders were all part of the Roman arsenal against poor hygiene. It is not difficult to imagine that the very same urban crowding which fostered the spread of infectious disease also became the impetus for the use of strong perfumes and concealing makeup. Romans lived in close quarters and with the aid of cosmetics were able to ameliorate the difficulties caused by physical blemishes and odors. It may not be unreasonable to see the use of cosmetics as another means of self-defense; the Roman world turned to pharmacy to defend its property, protect its population, destroy its enemies and improve person-to-person interactions.

The next logical step in an examination of Roman pharmacy would be the investigation of Imperial drug use and the development of the craft of the *medicus* under the rule of the emperors. It would be interesting to follow the progression of specific types of drug use (i.e. medicinal, recreational) as the social environment changed and Rome became an even more crowded metropolis. There are many possible approaches to

such a study, whether sociological, political, or scientific, but any information on such an important topic would greatly assist our understanding of some of the greatest minds and moments of classical antiquity.

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